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EDUCATION

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Alberta. Dept. of Education
Course of studies for the public
schools

SUBJECT

PROVINCE OF ALBERTA
DEPARTMENT OF EDUCATION

COURSE OF STUDIES

FOR THE

PUBLIC SCHOOLS

PRINTED BY ORDER OF THE LEGISLATIVE
ASSEMBLY OF ALBERTA



EDMONTON:

JAS. E. RICHARDS, GOVERNMENT PRINTER
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INTRODUCTORY NOTE

Last year a committee composed of prominent educationists of the Province was appointed by the Minister of Education to consider the revision of the Programme of Studies, and to make such recommendations as might be deemed desirable with a view to its improvement. The committee, after much careful work, has submitted its report, and upon this report is based the Course of Studies outlined in the following pages.

It will be noted that the new programme provides for the division of the whole public school course into eight grades, each of which represents a year's work for the pupil of average ability. The teacher, however, should avoid a slavish adherence to this principle, as it will frequently be found that pupils who enter school at a later age than usual or who possess more than ordinary ability may, with advantage both to themselves and to the classification of the school, be promoted from grade to grade more frequently than once a year.

It is recommended that the readjustment of classes consequent upon the adoption of the new course should be made at New Year's, but teachers, especially those in ungraded schools, should make such readjustment subject to the approval of the Inspector.

The course prescribed herein is a tentative one. During its probationary year any defects which it may possess will become manifest, and a further revision in some of its details may be necessary. In the meantime it will be subjected to the crucial test of schoolroom experience.

D. S. MACKENZIE.

*Department of Education,
Edmonton, December, 1911.*

COURSE OF STUDIES

PUBLIC SCHOOLS.

GRADES I TO VIII.

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ARITHMETIC

Purpose.—The general purpose underlying the teaching of arithmetic in the Public School is to give the pupil facility in recognizing and dealing with the quantitative relations of things for his own necessity, use or benefit.

Sense Training.—In its early stages the teaching consists of sense training or is closely associated with it. The number property of things is taught through the things themselves. The basis of judgment with respect to number should be action or experience in the early stages of instruction.

Counting.—In the consideration of a group or series of things the idea of succession or addition naturally precedes analysis; hence counting precedes the study of combinations and may naturally go in advance of combination study. Beyond the number 20 counting should be based on the understanding of a succession of groups of 10 as far as 100 and of a series of groups of 100 to 1000. This may be followed by group counting by 2, 5, etc., as the study of combinations progresses. The teaching in the first three grades should be marked by the liberal use of objects, oral and blackboard work and slight attention should be paid to laborious problem statements and solutions. The use of objects should not be continued past the time that a knowledge of combinations becomes automatic. The transition from concrete to symbolic number work should be as rapid as possible.

Mechanical Facility.—The dominant aim of teaching in grades four, five and six, commonly called the intermediate grades, should be to make the child familiar with the fundamental number relations and operations and to give facility and accuracy in these operations by constant mechanical exercise in these operations. Problems should be essentially interesting to the child by reason of being connected with his experience or at least be easily understood. Where new tables of denominate numbers are introduced or problems connected with them, as in the case of measurements of quantities, solids or surfaces, the subject should be made concrete by actual measurements by the pupils themselves.

Use of Memory.—During this period the child's memory may be liberally exercised in thoroughly fixing the number combinations, the multiplication tables and the denominate number tables. Arithmetic teaching fails if the child at the end of this period cannot accurately use these tables automatically. Mental arithmetic should be given large attention. In order to call into exercise and secure strength in the whole of a class mental drill should be on comparatively easy rather than on puzzling matter that appeals

only to the bright pupil. It should take the form of systematized review exercises on the work of the previous grade. Five or ten minutes daily should be given to this work.

The Logic of Arithmetic.—In the two upper grades of the school the aim of the teaching should be largely the developing of the power of logical analysis of problems and their systematic solution. Mechanical routine should be as far as possible avoided and a sense of power developed by interesting variations and natural difficulties related to well-grounded principles. Written analysis of problems should be insisted upon. Solutions by both the unitary method and by the method of comparison in relation to the needs or powers of pupils. Teachers should aim to develop in themselves large facility in oral work for the teaching of processes involved in problem solution.

OUTLINE OF COURSE IN ARITHMETIC

GRADE I.

Object.—Study of the numbers 1 to 10.

During the first term the number work should be quite informal, consisting only of the recognition of numbers and learning to count and write the numbers to 10. This work should proceed slowly and, as far as possible, should grow out of the needs of the school and playground. The pupils should be able to bring six books, to draw a line four inches long, to determine that there are seven marbles in a ring, and to recognize groups containing two, three, four, five objects.

During the first and second years all number work should be conducted in such a way as to require pupils to acquire their knowledge through *action*, rather than mere memorizing of facts that may not be perceived by them.

Outline.—Recognition of numbers up to 6 by objects, pictures, picture-numbers, etc., through the different senses. Recognition and writing of figures.

Combinations of the numbers, first with objects to handle, then using familiar things to illustrate, as marbles, tops, trees, days, etc., orally, followed later by the written symbols to represent them as

3	plus	3	equals	5	plus	equals	6
4	"	2	"	3	"	"	4
1	"	5	"	2	"	"	5

Drill in adding from the blackboard at sight.

2	1	3	4
3	2	2	2
—	1	1	—
1	1		

Etc.

Separations or differences treated similarly, i.e., first orally, then with the picture-numbers and figures.

5 minus 3 equals 6 minus 3 equals , etc.

Teaching of fractional parts, one-half, one-fourth, one-third, by means of dividing objects, apples, circles, etc.

By means of objects and through oral drill bring out all the various combinations of the numbers up to 6, e.g., 2 twos make 4, 2 threes make 6, 3 is one-half of 6; get the work accurate thus far before taking other numbers.

Higher numbers introduced, 7 to 10, and combinations taught.

Simple oral problems.

Aim at accuracy in adding and ready recognition of all results in the numbers up to 10.

Reading of numbers and counting of objects up to 100.

(Not more than 15 minutes each half-day to be spent in teaching.)

GRADE II.

Object.—Study of numbers 1 to 25.

Outline: Review of and drill on the numbers 1 to 10.

Introduction of new numbers from 11 up. Combinations treated as in the case of smaller numbers.

Compare 2 12 2 12 3 13 3—2 equals ; 4—2 equals
1 1 2 2 2 2 13—2 equals ; 14—2 “ etc.

Utilize all previous knowledge possible in dealing with each new number. Review constantly. Meaning of second figure in numbers of two figures.

Counting by tens, fives, and twos, to 100 or higher.

Drill in rapid addition of single columns and subtraction without borrowing.

Use of endings in adding:

6	16	36	7	17	27	5	15	45	8	18	28
3	3	3	3	3	3	7	7	7	8	8	8 etc.

Meaning and relation of one-half and one-fourth, without use of symbols.

Use and relation of pint, quart, gallon; inch, foot, yard; hour, day, week, month, year; ounce, pound; five, ten and twenty-five cent coins.

Teach these concretely and incidentally rather than with drill for accuracy. No tables to be made.

Problems: Simple in general, and such as appeal to the things with which pupils are familiar.

Reading of numbers up to 1000.

GRADE III.

Object.—Mastery of the combinations in Addition and Subtraction; elements of Multiplication and Division.

Outline.—*Addition*—Drill in sight recognition and rapid adding of combinations. The easier combinations should be thoroughly learned before taking the more difficult ones. Teach addition by endings and use a great deal of oral drill.

Subtraction: Sight drill as in addition, first with small numbers, then with numbers up to four or five digits.

Multiplication: Counting by twos, threes—tens up to 100. Making and learning of multiplication tables to 10×10 . Drill in oral and sight recognition of results; multiplying numbers of three and four digits by one digit.

Division: Recognition of numbers whose product is 24, 42, 45, 72—96; easy examples in short division, using divisors up to 10.

Note.—A large part of this work, especially in Multiplication and Division, should be mental and oral.

Roman Notation to 25.

Use of symbols for fractions taught, and other simple fractions, one-third, one-sixth; relation of one-half, one-fourth, one-eighth, and of one-third, one-sixth.

Practice in finding one-half, one-third, one-fourth, one-sixth, one-eighth of a number of objects, and writing the results obtained.

Reading and writing numbers of five figures; explanation of system of notation as far as needed to understand numbers used.

Problems involving the simple rules, denominate numbers, and easy fractions, largely mental.

GRADE IV.

Object.—Mastery of the four simple rules and accuracy in mechanical work.

Outline.—Addition and subtraction continued for drill in rapid and accurate work.

Multiplication tables to 12×12 , and multiplying by numbers of two and three digits.

Division, short and long, dividing by numbers of two and three digits.

Relation of fractions to division; finding one-sixth, one-eighth, one-ninth, etc., of a given number, as used in problems rather than by formal teaching.

The measuring of lengths and finding of simple areas from measurements and diagrams.

Learning of the simple tables; Avoirdupois Weight, Long Measure, Dry and Liquid Measure, Measure of Time.

Roman Notation to 100.

Reading and writing of numbers up to nine digits.

Problems on above and simple tables, as taught.

GRADE V.

Object.—Mastery of the tables; learning of Reduction and the Compound Rules.

Outline.—Notation and Numeration, Roman Notation, Simple Rules.

Weights and Measures, as in Grade IV, with Square Measure, Cubic or Solid Measure, and Miscellaneous, Pounds in Bushel, Gross, Quire, Score, &c.; Reduction, Compound Rules, (Reduction and the Compound Rules to be limited to simpler instances).

Simple application of the tables, measurement of surfaces and areas, contents of boxes, piles of wood, fencing, &c. Bills of goods.

Problems.—Drill in mechanical accuracy in four simple rules, including application of fractions to division. Mental arithmetic.

GRADE VI.

Object.—Study of numbers preparatory to fractions, and mastery of fractions.

Outline.—Simple and Compound Rules and further practical applications; papering, plastering, carpeting, board measure.

Factors, multiples, prime numbers, laws of divisibility.

Greatest common divisor, least common multiple.

Fractions.—Reduction of fractions. Addition and subtraction, first adding and subtracting similar fractions, treated as denominate numbers, then getting the common denominator. Multiplication and division of fractions.

Percentage.—Use and meaning of 50 per cent., 25 per cent., 20 per cent., 10 per cent. 5 per cent., 33 $\frac{1}{3}$ per cent., 12 $\frac{1}{2}$ per cent.; relation of these to simple fractions.

Miscellaneous problems on the foregoing.

Review of the simple rules. Mental arithmetic.

GRADE VII.

Object.—Study of decimals and percentage, with simple applications.

Outline.—Review of fractions and fractional parts.

Decimals.—Reading and writing, reducing to common fractions: addition, subtraction.

Multiplication and division of decimals.

Use and Meaning of Percentage.—Relation of percentage to fractions and decimals.

Type Problems:—

What is one-third of 24?

24 is one-third of what number?

24 is what part of 40?

What number is one-third greater than 24?

24 is one-third greater than what number?

24 is what part greater than 20?

What number is one-third less than 24?

20 is one-third less than what number?

20 is what part less than 25?

Use of similar problems with 25, (or other), per cent., instead of fractions. This work should be chiefly oral and mental and is intended to familiarize pupils with the processes and ideas used in business applications of percentage, by means of types in which the numerical difficulties are slight.

Applications of percentage to loss and gain, averages and percentages. Simple interest.

Miscellaneous Problems.—Drill in mental work.

GRADE VIII.

Object.—Study of business applications of Percentage and Mensuration.

Outline.—Review: Fractions, decimals and percentage.

Business Applications of Percentage.—Commission, Trade Discount, Insurance, Taxes, Duties, Interest, Elementary Mensuration. Metric System.

Miscellaneous Problems.

READING

Reading in the Elementary School.—The bearing of reading on the progress of the pupil in all other studies in the Public School makes it the most important subject of the school course. The emphasis to be placed upon it as an instrumental study is very great in the first two or three years of school. In this view there is need of very careful teaching in the primary grades to develop a simple vocabulary and put the child into possession of the knowledge of elementary symbols by exercise in their recognition and use. The three aims of formal power, interest and expression cannot be dissociated in the teaching of reading in any grade of the school, but with respect to emphasis they probably stand out in the order named in relation to the reading of the primary, intermediate and senior grades.

Primary Reading.—There are three methods commonly employed to establish in the child the formal elements of power to read. These may be called the thought, word and phonic methods. The interest side necessary to the right beginning of Primary teaching is commonly satisfied by the use of stories, rhymes, games and pictures, and the suggestion that the power to read is a way by which the child may learn more about these things for himself. The thought and word methods precede the phonic method, but it is not important whether the thought method precedes the word method or comes after it. In the use of either the sentence or the single word the essential teaching is a case of associating word-symbol and thing or action and the interest may be as great in one case as in the other. The sentence or thought method is a natural unit of expression, and adds to the teaching of formal elements an opportunity for the developing of smoothness belonging to the use of normal reading matter. The usual method of dealing with the sentence is to write it and have the whole thought repeated a number of times before proceeding to drill in individual words.

While the best teaching of reading results in such rapid recognition as to take account of phrases, lines or whole sentences with a concurrent power of suitable expression. The repetition of a whole sentence by a pupil before the significance of its parts is understood is limited in value largely to expression and does not mark any educational progress in relation to formal elements. While the word method is more formal, the thought content is

definite, significant and single. The words taught should deal with concrete actions or objects, such as run, sit, jump, book, man, pen, etc. When words have been taught they should be built into normal expression, such as I run, I sit, I see a book, etc. The essential difference between the sentence and word methods is that one is a species of analytic study of normal expression while the other is a synthetic construction of normal expression with significant symbols. Either method may be employed successfully alone, or both may be employed according to taste or choice.

Phonic Teaching.—It is rather difficult to determine the amount of time to be spent in word and sentence study before beginning phonic analysis but it should be introduced before the vocabulary becomes so large as to tax the memory of the child. The ordinary method of procedure is for the teacher to begin by the slow sounding of the word in order to train the ear of the child to discover that words are made up of a number of separate sounds. This is followed by the separation of the letters that stand for the sounds and the association of the sounds with the letters that stand for them. The next step is the combining of the sounds and letters to produce new words.

After phonic analysis is introduced, the child's vocabulary increases rapidly. Phonic drill should be given daily, and a systematic progression followed in the introduction of the sounds of the letters. The order at the back of the primer may be followed, or the order may be determined by the vocabulary already taught. Roughly speaking, the short sounds of the vowels in combination with the consonant sounds, except q, x and z, come first. These are followed by the long vowel sounds and consonant combinations. The primer should not be put into the hands of the child until the vocabulary of the first twenty-five pages has been covered, and the child has become fairly expert in making out words by phonics, so that the first lessons in the primer will be easy for him. The blackboard should be used exclusively in early teaching, and in the forestalling of difficulties presented in the primer. The symbols should be in script and diacritical marks should not be employed.

The teacher should demand correct expression from the first. Word calling is not reading. The child should be trained to grasp the group of words at sight, or think the meaning of individual words and of the whole sentence before reading it aloud. This should apply to all of the material of the primer at the end of the first year. An important aid to expression and interest is the employment of dramatization wherever the lessons of the primer lend themselves to it. Facility in reading should be increased by the covering of at least two primers in sight reading.

The work of phonics should be continued in the second year. Sounds should be grouped as far as possible, and vocabulary built up by groups on the principle of similarity of form, ending, etc. Word drill should precede all reading. Expression should be carefully attended to, chiefly through dramatization where material is suitable. Memorization should be extended beyond the

poems found in the reader. The "Child's Garden of Verse" contains suitable material for this work.

Reading in the Intermediate Grades.—By the time pupils have reached the third or fourth year of school, they will have overcome most of the mechanical difficulties of reading, and will have begun to find pleasure in the reading for the sake of the story, independent of the teaching. The teaching should undergo suitable transition by the emphasis placed upon content for the sake of enkindling a love of good literature. The second reader of the authorized series distinctly emphasizes the story idea, and there is available much good, juvenile literature suitable to this period. The growth of interest indicates the wisdom of emphasizing expressive reading. The desire to impart to others should be encouraged as appreciation grows. The memory of children may be freely exercised on suitable passages of both verse and prose. The exercise, however, should be a pleasure rather than a task.

Reading, a Formal Art.—In the seventh and eighth grades increased attention should be paid to reading as an art. Added to the need of ordinary voice culture by right enunciation, emphasis and inflection, pupils of the senior grades of the elementary schools are commonly hampered by diffidence and self-consciousness. Expression must be warmed by the light of enlarged understanding, feeling and imagination resulting from an appreciation of the higher content of literature suited to this age of the pupil. On the formal side, expression should be improved by careful drill on selected passages in relation to clear enunciation, flexibility, emphasis and ease. The capacity for self-criticism in the pupil should be made use of but the chief factor in securing right results is the enthusiasm and taste for good literature in the teacher.

Use of Supplementary Reading.—The list of books for supplementary reading is purposely made rather complete. In the lower grades the supplementary work must necessarily be largely under the direction of the teacher. All the books named may not be used but such as are not used are likely to be useful material for the teacher. Neither is it expected that all the material named as supplementary reading in the upper grades will be put to use in the class or that it will be read under supervision or necessarily read in class. The list is intended to suggest suitable material for the enlarging of the pupil's literary experiences and enjoyment, which may not be less by reason of the reading being done outside of the class. The teacher should be interested to the extent of having the books read by pupils and may encourage pupils by brief informal or individual discussion of what they are reading. In the building up of the school library teachers should see that all supplementary works are made available to pupils.

READING.—GRADE I.

First Half of Year.—Action, words and sentences to emphasize the thought element. Reading from the blackboard and from cards.

Lessons constructed and arranged by the teacher.

Vocabulary selected from first thirteen pages of primer, names of objects in the schoolroom, names of children and numbers up to ten. Vocabulary should comprise forty or fifty words before phonic is begun.

Phonics.—Single consonant sounds in combination with short sounds of vowels; then long sounds of vowels and simple consonant combinations, as, *ch, sh*.

The primer should not be placed in the hands of the pupils during the first two months at school; most children take three months to prepare for it. Reading the primer as far as page twenty-five. Murray's *Phonetic Primer for Teachers' Use* as an aid to progressive phonic teaching.

Second Half of Year.—*Phonics*.—Additional consonant sounds and combinations, diphthongs, *ou, ow, oy, oi*; two sounds for *c, g, y, and th*. Finish reading the Primer. Two supplementary primers as sight reading.

Supplementary Primers.

(Selected in the order named.)

Phonic Primer	Morang's
Werner Primer	American Book Co.
(Especially valuable for methods and busy work.)	
Aldine Primer (easy method for backward pupils),	Newson & Co.
The McClosky Primer	Ginn & Co.
Heart of Oak (Norton)	Heath
Ontario Primer	T. Eaton & Co.

GRADE II.

First Reader, Alexandra Series.

Phonics.—Continue the work begun in phonic drill. Group sounds, building of lists of words with similar endings, *ar, ir, er, ur, ing, ly, ed, tion, etc.*

Word Study.—Thorough word-drills preceding reading lesson.

Suitable attention to expression.

Dramatization as an aid to expression. Short poems memorized and recited.

Supplementary Readers.

Art Literature Series. Book I.	Atkinson, Mentzer & Grover
Heart of Oak Series (Norton), Book II.	Heath
Hiawatha Primer	Houghton, Mifflin & Co.
Cyr's Dramatic First Reader	Ginn & Co.
Child's Garden of Verse. (R. L. Stevenson),	Rand, McNally & Co

GRADE III.

Second Reader, Alexandra Series.

Thorough word-drill before reading.

Drill in articulation, using difficult combinations of sounds.

Practice of exercises helpful in securing pleasing quality of voice, ready control of vocal organs, correct emphasis and inflection.

Training of pupils to get thought of lesson as basis of expression. Encouraging pupils to read with the purpose of giving pleasure to others.

Dramatization.—Memory work.

Supplementary Reading.

Alice in Wonderland, (Carroll) Macmillan
 Merry Animal Tales, (Bingham), ... Little, Brown & Co.
 The King of the Golden River, (Ruskin), ... Heath
 The Adventures of Pinocchio, (Collodi), ... Ginn & Co.
 Three Years with the Poets, (Hazard), . Houghton, Mifflin & Co.

GRADE IV.

Third Reader, to Page 195, Alexandra Series.

Thorough word-drill before reading.

Mastery of thought and of the pronunciation of words insisted upon as a preparation of the oral reading of the lessons.

Pupils to be trained in stating orally the substance of the lesson before reading, aiming to secure good expression as a result of thought mastery.

Frequent reading of lessons already gone over, with which pupils are familiar gives excellent opportunity for drill in expression.

Use of the Dictionary.

Choice selections memorized and recited.

Supplementary Reading.

Through the Looking-Glass, (Carroll) Macmillan
 In the Days of the Giants, (Brown), Houghton, Mifflin & Co.
 Adventures of Ulysses, (Lamb), ... Ginn & Co.
 The Odessey, (Lang) Macmillan
 Poems Every Child Should Know, (Burt), Doubleday, Page & Co.

GRADE V.

Completion of Third Reader, Alexandra Series.

Continuation of work indicated in the course of study for preceding year and continuation of use of the dictionary for pronunciation and for getting the meaning of words.

Frequent exercises in sight-reading from books in the library.

Reading of selections previously gone over for training in expression.

Choice selections memorized and recited.

Supplementary Reading.

A Wonder Book, (Hawthorne), ... Houghton, Mifflin & Co.
 Treasure Island, (Stevenson), ... Little, Brown & Co.
 Myths of Greece and Rome (Guerber) American Book Co.

Selected Poems, e.g., The Bell of Atri, King Robert of Sicily and other poems from "Tales of a Wayside Inn," by Longfellow. Children's Treasury of Poetry and Song—Palgrave.

GRADE VI.

Fourth Reader, to Page 202, Alexandra Series.

Intelligent understanding insisted upon as a basis for expressive reading. Meaning of words, phrases, clauses, and sentences must be clear to the pupil in order that he may read intelligently.

The reading lesson should be assigned by the teacher and carefully prepared by the pupil.

Pupils should be encouraged to read books from the library for pleasure as well as for information. Some discussion of books read outside of school might be taken with advantage in the language period.

Choice selections memorized and recited.

Supplementary Reading.

Macaulay's Lays of Ancient Rome.

Ivanhoe.—Sir Walter Scott.

Courtship of Miles Standish.—Longfellow.

Rip Van Winkle.—Irving.

Legend of Sleepy Hollow.—Irving.

GRADE VII.

Complete the Fourth Reader, Alexandra Series.

Follow the same line of work as for Grade VI as to intelligent understanding of the material for reading in words, phrases, clauses and sentences. Emphasize expression of formal and detailed drill on individual words, phrases, clauses and sentences for emphasis and shades of expression such as are involved in the treatment of reading as an art. Give suitable attention by caution and encouragement to the private reading of pupils by discussion of the essential character and attraction of special works and authors.

Supplementary Reading.

A Book of Golden Deeds.—Yonge.

Murnburg Stove.—Ouida.

Lamb's Tales from Shakespeare.

A Christmas Carol.—Dickens.

Evangeline.—Longfellow.

GRADE VIII.

Selections from prescribed reader.

The same formal teaching as in Grade VII with respect to the art of reading and the materials of private reading.

Supplementary Reading.

Red Cloud, (Butler), Burns & Oak, London, England.

The Talisman.—Scott.

Merchant of Venice.

WRITING

Aim.—The aim of teaching writing is to develop in pupils the power to write rapidly a legible, graceful hand.

Materials.—The materials used must be suited to the age of the pupil and should be of good quality to secure good work. For the first two years the chief materials or equipment will be the blackboard and chalk, inexpensive paper, crayons and soft pencils. In the third grade pen and ink may be introduced. The ink should be smooth-flowing, blue-black ink; the pens should not be too fine nor too blunt and the kind should not be changed when a satisfactory kind is decided upon. Books should be blank writing books, bound at the sides to double back, flat or half sheets of foolscap may be used. Manuals containing instructions, graded movement exercises, letter development exercises and word and sentence copies should be provided. In the lower grades of the school, exercises taken from a graded manual should be set by the teacher; in the upper grades, manuals should be in the hands of the pupils themselves. To secure uniformity and suitable quality in materials as well as economy, they should be supplied to the pupils in all schools by the Board.

System.—The whole arm or muscular movement system has been proved to be the best suited to Public School needs. It makes use of the larger muscles of the arm and shoulder rather than of the smaller muscles of the fingers. In young pupils it is easier to secure a co-ordination of the larger muscles in larger movements than in small ones and large exercises must be given to secure this development and control. The early letter forms must be of the simplest character. The main lines should have a slant of from 25 to 35 degrees from the perpendicular.

Method.—Suitable attention must be paid to method and progression in order to secure good results. At the outset in the teaching of writing there seems to be a conflict between form and movement.

Because of the necessary correlation between writing and reading and between writing and number work, the primary teacher must give some attention to form, but on the other hand, in relation to writing itself, movement is of supreme importance. In formal lessons in writing in the primary grades, movement exercises must constitute the major portion of the work. The teacher must recognize that it is not necessarily the child who makes the best formed letter that is the best writer, but that it is the one who makes the best formed letter with the proper movement. Hence, at first, as much attention to movement and as little to form as is consistent with the needs of other subjects must be given. Gradually the emphasis may be shifted so that in the higher grades both ease of movement and perfection of form are secured. Practice in securing muscular control must be co-ordinated with the careful study and production of correct forms. Study and practice should go hand in hand.

As early as possible pupils should be encouraged to apply the muscular movement to his ordinary writing and exercises. This can first be done in the formal spelling lesson. The teacher should consistently exemplify the system taught. The teacher whose writing is an inspiration to pupils, will find it easier to secure interest and get good results.

Position.—From the beginning pupils should be taught to take the proper position at the desk. If the desk is large enough from front to rear the pupil should sit facing it directly, the feet should both rest on the floor, both arms should rest easily on the desk and the pen should be gently and easily held.

COURSE .

GRADES I and II.

Whole arm movement at the blackboard, making easy picture exercises based on objects in which the child is interested,—sleigh, ball, hoop, waggon,—using lateral, drive and return, and oval or combined movement. Development of movement exercises into small letters. Copying of words. Repetition of these exercises at desks with soft pencils and coarse paper. Pupils may first stand, then sit. All exercises and letters to be made large to prevent finger movement.

GRADES III and IV.

Exercises similar to those of the first two grades. Use of pen and ink. Application of movement to writing of words in the spelling lessons. Development of capitals from picture exercises. Simple analysis of letter forms. Copying of selections from readers. Word and sentence copies. Easy letter writing.

GRADES V and VI.

Gymnastics and movement exercises to give freedom of arm movement. Word and sentence copies. Some attention to rate of writing. The writing of all small letters and figures and the grouping of these according to movement formation. Progressive replacing of mere copy work by analytic work in the group exercises. Some attention to errors in spacing and form. Similar treatment of capital letters. Reduction in the size of letters; copying. Supervision of written work in all subjects.

GRADES VII and VIII.

Complete review of movement exercises, with more difficult combinations. Special attention to time and speed—careful analysis of small and capital letters according to group formation. Correction of errors in form and spacing. Allowances should be made for individuality of expression with regard to slant and size of letter. Freer use of exercises requiring sustained and progressive effort. Careful supervision of all written work. Writing of business and social letters, business forms. Careful attention to position on page.

SPELLING

Formal Spelling.—Formal spelling should not be taught before the completion of the Primer. Previous to that pupils should learn the form of the word by copying it as a whole or through the use of phonic analysis and not by analyzing it into its component letters. Preparatory work for formal spelling should consist in acquiring a good grasp of phonics and phonics should gradually shade into formal spelling.

Teaching.—In the introductory lessons of phonics and spelling, the first words taught should be short, common to the pupil's vocabulary and experience and suitable for phonic analysis and synthesis. Words having the same phonogram should be taught in groups,—and, band, hand, land, etc. Words regularly phonetic should be taught first, and irregular words and those containing silent letters introduced afterwards. Silent letters in a word should not be defaced by markings nor should diacritical marks be used in the early stages of phonics and spelling. Time should not be taken to teach pupils the words in the readers presenting special difficulty or words quite outside of the range of their experience. Teachers should drill on the commonly used words. Care should be given to the spelling in all written work. Inasmuch as phonics and spelling are nearly related to reading, writing and language in the primary grades, the work in these subjects should be closely correlated. The training should aim to give ready recognition of familiar words, the power to make out new words, distinct enunciation, correct pronunciation, ear training, eye training and voice culture. Much attention should be given to correct pronunciation. Correct pronunciation is as important as correct spelling. If we had purely phonetic orthography, oral spelling would be a most helpful exercise and the ear would be the supreme test of accuracy. Unfortunately the orthography of our language is very erratic and consequently, until our spelling is made more phonetic in teaching this subject, there should be constant appeal to the eye,—written spelling,—as well as to the ear. Moreover, there is a muscular sense which is useful in learning to write words correctly and this sense should be utilized as well as the visual and the auditory.

Capitalization and punctuation should be dealt with as it occurs in reader and speller, supplemented by occasional reviews.

GRADE I.

Copy words from blackboard and text transcription.

Drill upon phonic elements.

Formal training in recognition of sounds and in their expression.

Position of the lips, tongue and teeth in effective articulation.

GRADE II.

Formal spelling. In relation to matter of reader only.

Word building exercises.

Oral spelling of words from reader.

Writing easy sentences from dictation on blackboard and with pencil.

Exercises in articulation.

GRADE III.

Formal spelling in relation to reader.

Sound and pronounce, spell and pronounce words of reader by inspection.

Copying sentences from reader and blackboard.

Easy names of familiar objects in the school room.

Continuation of language and spelling exercises on this material.

Write words from authorized speller.

Easy homonyms, synonyms, and autonyms. Lists preserved for drill.

Easy dictation from reader and from vocabulary of speller.

Articulation drills on difficult combinations of words.

GRADE IV.

Continuation of spelling from reader and from authorized speller. Dictation exercises on materials of both syllabication and accent. Training in the use of the dictionary in relation to syllabication and accent. Frequent reviews of difficult words. Articulation drills.

GRADE V.

Continuation of exercises in spelling and dictation based on reader and speller. Sustained dictation. Use of dictionary. Teach reading of diacritical marks. Articulation drills with special attention to defective pupils.

GRADE VI.

Continuation of dictation and spelling. Exercises from reader and speller. Vary dictation by introducing matter from other sources,—from poetry, brief letters in right form, etc. Rules of spelling from practices illustrated in speller in use of prefixes, suffixes, etc.

GRADES VII and VIII.

Continuation of exercises of Grade VI. Word building. Study of derivation and composition from easily understood examples. Common prefixes and suffixes and other significance. Application. Study of common Latin noun, adjective, and verb forms. Analysis of meaning of English words derived from Latin on basis of significance of root, prefix and suffix forms. Exercises. Common abbreviations.

GRAMMAR

Through the first three grades in school, the language lessons have had to do with the substance of language, with the end in view of developing freedom of expression, and correct habits according to standard usage. Many rules of form have become implicitly the child's possession through every-day use and observation of what he hears and reads. It is now time to begin, little by little, to organize this knowledge of the forms of language, and to make it explicit. Function and relation will still be the basis and the test, but, even in the fourth year, we can have some beginnings of definition, and some closer attention to the study of words and word-functions as well established instruments of expression.

The following suggestions may serve to emphasize the method of approach for each step of this more formal language training:

GRADES IV and V.

Avoid any indefinite use of words at first, e.g., of pronouns.

In teaching enlargements or modifiers, make no distinction between single word, phrase and clause, except the obvious distinction between word and word-group; teach function, not structure.

Determine classification of word always in light of context; beware of suggesting that words are fixed in their uses.

Use, at first, terms naturally suggested by word-functions. Avoid technical terms that belong to more advanced grades.

Develop the principles already implied in composition exercises.

The principle of progress throughout is the concentric or spiral: thorough, systematic, classification must be preceded by more general survey.

Consider carefully the appropriate or strategic point at which new terms and classifications are to be introduced; thus, there is no motive, or apperceptive basis, for the conjunctive pronouns and adverbs until subordinate clauses have been taught.

GRADE VI.

Case.—Approach through pronouns as the difference in form will aid in showing difference in relation.

Number, Gender, Comparison offer easy and interesting work in observation and induction; the pupils may be led to work out their own lists.

Tense involves two ideas: time and completeness. Teach in this grade the three simple time forms, and the variations of these to denote *progress, emphasis, etc.*

Mood.—Pupils know the statement and the command sentence-forms. Teach now the wish, or contingent form, as "Long live the King," "Heaven help us." Here, again, difference in forms leads to an observation of difference in function. Confine first lessons on subjunctive to independent sentences.

GRADES VII AND VIII.

Review carefully earlier general classifications, as a basis for fuller analysis, and for new divisions, as in *concrete* and *abstract* nouns.

Tense.—The compound tenses. Develop the idea of completeness and incompleteness as relative matters. That is, the force of the past, present and future perfect tenses can be intelligently grasped only by viewing in relation two distinct occurrences, one appearing as being, having been, about to be, complete or incomplete from the standpoint of the other. Exercises in sequence of tenses help to make these relations clear. Thus, compare, "I reach home at last, but my friends have gone," and "I reached home at last, but my friends had gone."

Mood.—Teach the various uses of the subjunctive in subordinate clauses, after *if*, *though*, *that*, *unless*, etc. Compare the indicative and subjunctive force of such forms as,

If he be here	}	Let him answer.
If he is here	}	
Since he is here	}	

Infinitives and *participles*.—Show the double function of these forms: *i.e.*, the verb as a noun, and the verb as an adjective.

Avoid dwelling on such distinctions as the *adjectival* and the *participial* functions of, *e.g.*, "Sparkling," in "The sparkling water gladdened the traveller's heart" and "The water, sparkling in the sunlight, gladdened the traveller's heart."

In Grades below VII or VIII, there is very little use trying to teach the grammar of the infinitive. Let the correct use of infinitive forms depend on exercise in composition.

In general, especially in the earlier grades, let the teaching of formal principles of grammar wait on practice in composition. Teach nothing the need for, or use of, which has not been realized. Let the principle of development be that of meaning and function and relation, not that of form and structure. A solid foundation, inductively established, on this principle, in the earlier grades, will allow much more rapid and real advance in the higher grades.

GRADE IV.

(First Half Year.)

Review of kinds of sentences: statement, command, request.

Review of whole subject and whole predicate as the two essential divisions of a sentence.

Name words or nouns.

Predicate words or verbs.

(Second half year.)

Idea of name words extended:

Object names.

Names of state or experience or feeling.

Idea of predicate words extended:

Words telling of action.

Words telling of experience or feeling.

Substitutes for name-words to avoid repetition:

Simple or personal pronouns.

GRADE V.

Review of sentence elements taught in IV.

Whole subject, whole predicate, name-words, predicate words.

Enlargements:

- (a) of the subject-word: word or word group enlargement, the simple adjective.
- (b) of the predicate word: word or word group enlargement, the simple adverb.

Connecting words:

- (a) simple conjunctions: and, but, or, etc.
- (b) Prepositions: Expressing position in, motion to or from, time when, in company with, by means of and other simple concrete relations.

Words of double or multiple function: words used in different functions at different times: *e.g.*, fast (adj.) and (adv.), ride (noun) and (verb).

Elements of Classification:

- (a) Nouns
 - (1) general or common
 - (2) particular or proper
 - (3) group names or collective
 - (4) quality nouns or abstract
- (b) Pronouns
 - (1) simple (personal)
 - (2) question or interrogative
 - (3) pointing out or demonstrative.

NOTE.—Defer teaching connective pronoun until complex sentence is taken up.

(c) Adjectives:

- (1) Describing (qualitative): size, shape, color, character, material, etc.
- (2) Numbering (quantitative).
- (3) Pointing out (demonstrative), *e.g.*, “this,” “first,” etc.

(d) Adverbs:

- (1) simple—time, place, manner, etc.
- (2) Question or interrogative.

NOTE.—Defer teaching “Connective adverbs” until complex sentence is taken up.

(e) Verbs:

- (1) Requiring some word or word-group to make up the whole predicate.
- (2) Not requiring any such completing word or word-group.

NOTE.—Make clear, at this point, the distinction between a completing and an enlarging word or word-group.

Further examples of conjunctions: Explain co-ordinating conjunction.

Further examples of words of double function.

Exercises in distinguishing sentence-elements by their functions.

Exclamatory sentences and exclamatory words.

GRADE VI.

Review of classification taught in Grade V.

Different ways of completing the predicate: complement and object.

NOTE.—At this point, the distinction between subject and object and between transitive and intransitive verbs, may be made clear.

Forms of verb “be” as always requiring subjective complement.

Differences in form to denote differences in relations:

Inflection:

(a) Nouns and pronouns: case.

(1) The subject relation: nominative case.

(2) The object relation: objective case.

(3) The possessive relation: possessive case.

(4) The appositive relation: case in apposition.

(b) Nouns and pronouns: number.

(1) Singular and plural forms in common use, and modes of formation.

(2) Possessive plural forms.

(c) Nouns and pronouns: gender.

Masculine, and feminine forms in common use, modes of formation.

(d) Verbs:

(1) Number and person: taught in relation to number and person in nouns and pronouns.

(2) Tense: simple present, past and future and the progressive and emphatic forms of these.

(3) Mood: of statement sentence: assertive or indicative. Of command sentence: imperative. Of wish sentence: subjective, *e.g.*, “Long live the King.”

(4) Active and passive forms distinguished. Exercises in changing form from one to the other.

(e) Adjectives and adverbs: degrees of comparison and modes of formation.

Exercises in agreement of nouns and pronouns: of subjects and predicates.

General analysis of simple sentences. Simple parsing based on study of meaning.

GRADE VII.

Brief reviews of classification and inflection: formation of abstract nouns from other classes of words.

Pronouns: reflexive, indefinite and impersonal uses, possessive adjective pronouns.

Frequent exercises in complete classification of parts of speech thus far learned, and of forms of inflection.

Tense: The compound tenses: imperfect and perfect forms contrasted.

Mood: subjunctive mood in subordinate clauses, after "lest," "tho'," "if," etc.

Verbs classified as weak and strong or regular and irregular.

Verbs classified as active and passive.

Verbal nouns: gerund and infinitive: imperfect and perfect. Other uses of the infinitive: as adjectives and adverbs. Frequent exercises in tabulation of forms of declension and conjugation.

NOTE.—Use text-book mainly for verification and for seat-exercises.

Auxiliary verbs:

(a) of tense, mood and voice.

(b) "may," "must," "shall," "will," etc.

Distinguish the special force of each.

The Complex Sentences:

(a) Easy complex sentences developed from corresponding simple sentence forms.

(b) Exercises in enlarging simple sentences into complex, as already taught in composition.

(c) Kinds of Clauses: developed from corresponding single-word functions.

(d) Clauses and phrases distinguished.

The compound sentence. General analysis of easy complex and compound sentences.

GRADE VIII.

Review exercises in classification, inflection, conjugation.

Review of simple, complex and compound sentences.

Connective pronouns and adverbs.

Co-ordinating and subordinating conjunctions.

Complete classifications, etc., according to authorized text-book.

Irregular and exceptional forms: compound number and gender and possessive forms.

The more common foreign number and gender forms in use in English.

Principal parts of verbs thoroughly.

Varieties of predicate complement forms:

Adverbial objective forms.

Cognate and reflexive objects, etc.

Complements of the object.

Compound-complex sentences.

Various uses of the subordinate clauses.

Syntax of the Infinitive and Participle.

Analysis and synthesis of compound and complex sentences.

Comprehensive study of authorized text-book.

HISTORY

Definition.—The common conception of history is that it is a chronicle of events marking the general progress of mankind. This progress is concerned with material and industrial things, with literature, art, religion, and with social and political institutions. The right teaching of history takes account of it ultimately as a study of the institutional life of a people or of the progress of the social whole rather than as a chronicle of the doings of individuals, but as movements can best be understood in relation to those who are connected with their progress, history resolves itself into a study of the institutional life of the race concretely set forth in the ideas and actions of its men and women.

The Biographical Side.—In the elementary school, especially in beginning the subject, it is advisable to treat it as an account of a series of events or as a study of the development of institutions. A knowledge of institutions is the result of a generalization of the knowledge of events, and events are of broader and vaguer interest than are the actions of men. This method is not only the most interesting, but it is the logical method, and the habit of mind or condition of mind of the child.

While history in the earlier teaching of it is concerned with people and their actions, it is concerned in the main with the actions of people outside of the experience or observation of the child. It makes constant appeal to the imagination rather than to sense perception and in relation to formal teaching it is confined to the upper half of the course.

Much preparatory work for history is done in the second, third and fourth years in connection with the reading work. Stories of home life, of other lands and peoples, fables, myths and tales of Greece and Rome and the Northland, adventures, great heroes, Bible characters, historical pictures, are good material for oral and written reproduction, and at the same time furnish excellent material for the foundation work of history. Up to the beginning of the fifth grade the story and the romantic rather than the fact side of history should be given prominence. The aim should not be so much to impart a definite amount of knowledge and to require the memorization of facts as, by a judicious selection and presentation of material, to leave in the minds of the pupils general impressions of the results of right and wrong actions, to arouse an intelligent interest in people, places and events, and to develop a genuine taste for the subject. Inasmuch as in the child's mind the place relation precedes the time relation, maps should be freely used in the teaching of history in the early part of the course and geography is an important aid to history teaching throughout the course.

History in the Upper Grades.—In the higher grades a grasp of the time relation, the study of motives, cause and effect and judgment as to the reason of things should gradually replace the story and picturesque side of the subject. The state should ultimately emerge as the highest of human institutions, and loyalty to the state as the first virtue in the citizen.

Special Days.—The dates on which important national events have occurred, and national and school holidays such as Alberta Day, Dominion Day, Paardeburg Day, Trafalgar Day, Empire Day, etc., may be marked by special exercises and the flying of the flag.

GRADE V.

I. Home History—

Stories by pupil and questions by teacher about:

- (a) The origin of the settlement or community and its location.
- (b) The social life of the community.
 - (1) In earlier days.
 - (2) The gradual acquisition of increased comforts, privileges and opportunities.
- (c) The occupation of the members of the community and why chosen; how they change or are added to in time as the needs of the community increase.
- (d) The organization of the community:
 - (1) Politically—L.I.D., *i.e.*, Local Improvement District, Village, Town, City.
 - (2) Educationally—School District.
 - (3) Religiously—Churches.
- (e) Comparison of life of boy or girl now with the life of a boy or girl in earlier days; the difference and why.

II. Transition to the larger community—The Canadian West—

- (a) Characteristic Stories of Western Life: Pioneer Life, Indian Life, Fur Traders, Cowboy Experiences, North-West Mounted Police, Trails, etc.
- (b) Local buildings and places of historical interest: Hudson's Bay Co., Forts, etc.
- (c) Heroes of Exploration: Hearne, McKenzie, Fraser, Thompson, etc.

GRADE VI.

I. The Canadian West—Alberta, Manitoba, Saskatchewan:

- (a) Pioneer life and experiences, with particular reference to the Fur Trade and the Hudson's Bay Co.
- (b) Missions and schools.
- (c) Sale of Rupert's Land.
- (d) Red River Rebellion.
- (e) Manitoba, a Province.
- (f) Organization of Northwest Territories.
- (g) Saskatchewan Rebellion.
- (h) Canadian Pacific Railway.
- (i) Saskatchewan and Alberta, Provinces.
- (j) Later development.

II. Romantic Side of General Canadian History—

- (a) Voyages of discovery—Leif Ericson, Columbus, Cabots, Cartier.
- (b) The native races.
- (c) The story of French Canada:
 1. Career of Champlain, the founder of New France.
 2. Attempts to Christianize the Indians; Jesuit Missionaries.
 3. The story of the Fur Trade; Company of One Hundred Associates.
 4. Royal Government.
 5. The career of Frontenac.
 6. The French Canadian—settlements along waterways, occupations, home comforts and social life, interest in their church.
 7. The opening of the West—Groseilliers and Radisson, Marquette and Joliet, La Salle, Verendrye, Hearne, McKenzie, Fraser, Thompson, etc.
 8. The British Conquest of Canada.

GRADE VII.

I. The story of British Canada—

- (a) Military Rule, 1760-1763.
- (b) Royal Proclamation, 1763-1774.
- (c) French Canadians and British Subjects.
- (d) The Quebec Act, 1774-1791.
- (e) The United Empire Loyalists.
- (f) The Constitutional Act, 1791-1841.
- (g) The Progress of Canada.
- (h) The Story of the war of 1812-1814.
- (i) The Rebellions in Upper and Lower Canada.
- (j) Lord Durham's Report.
- (k) The Act of Union, 1841-1867.
- (l) The Progress of Canada.
- (m) Events leading to Confederation.
- (n) The British North America Act, 1867.
- (o) Provinces that have since entered Confederation.
- (p) The Progress of Canada.
- (q) Canada, a part of the British Empire.

II. The Romantic Period of British History—

- (a) Geographical location of Great Britain and some idea of Britain's greatness and her long history.
- (b) The story of the early Britons.
- (c) The materials for the foundation of the British Nation.
 1. The coming of the Romans; their story, invasion and influence.
 2. The coming of the Jutes, Angles and Saxons; their original home, character, settlements, and simple methods of government and administration of justice.
 3. The coming of Christianity.
 4. The coming of the Danes.

5. The coming of the Normans.
- (d) The building of the Superstructure.
1. The Norman Period,—Distinguishing Characteristic,—“Kings vs. Barons.”
 - (a) Names of Sovereigns and dates of reigns.
 - (b) Outstanding incidents of the period associated with the reign of the sovereign in which they occurred, *e.g.*, how the land was rented, the castles, the knights and their ideals, the Crusades, etc. Group everything around the distinguishing characteristics of the period.
 - (c) Brief summary of the progress of the people.
2. The Plantaganet Period,—Distinguishing Characteristic,—“Barons vs. Kings.”
 - (a) Names of sovereigns and dates of reign.
 - (b) Outstanding incidents of the period associated with the reign of the sovereign in which they occurred, *e.g.*, quarrel with Becket, Richard I and the Crusades, the Great Charter, Simon de Montfort and his parliament, Conquest of Wales, Wars with Scotland, John Wicliff, Stories of Hundred Years’ War, the Black Death, the Workers’ and the Peasants’ Revolt, etc. Group everything around the distinguishing characteristic of the period.
 - (c) Brief summary of the progress of the people.
- III. The Houses of Lancaster and York,—Distinguishing Characteristic,—“Barons vs. Barons.”
 - (a) Names of sovereigns and dates of reigns.
 - (b) Stories of the Wars of the Roses.

GRADE VIII.

1. Canadian History in outline with particular reference to events subsequent to 1760.
- II. British History in outline with particular reference to events subsequent to 1485.
Building of Superstructure, (continued).
 1. The Tudor Period,—Distinguishing Characteristic,—“Crown vs. Church.”
 2. The Stuart Period—Distinguishing Characteristic.—“Divine right of Kings vs. Divine right of People.”
 3. The Hanoverian Period—Distinguishing Characteristic,—“The growth of Democracy.”
 4. Under each period take up the names of the sovereigns and the dates of their reigns; the outstanding incidents of the periods associated with the reigns of the sovereigns in which they occurred and grouping them about the distinguishing characteristic of the period. At the close of each period take up a brief summary of the progress of the people.
 5. The greatness of the British Empire of to-day and our privileges as citizens of that Empire.

CIVICS

All school work should convince the child of the advantages of order and government. School training is essentially a training for citizenship. Class organization brings the community sense and the administration of the school develops regard for authority. Among the subjects of instruction also history and literature contribute to broad citizenship training. History shows the development of government and tells the story of those who have struggled for or advanced national liberty. Literature idealizes the qualities that have made men great.

Civics, on the other hand, deals particularly with the duties of citizenship. It gives the special training and information that fit the boy for public and corporate duties. It is commenced formally with the study of institutions as they are found, rather than with their growth, as well as with a study of the privileges and responsibilities of the citizen with respect to these institutions. In addition to the benefit to the citizen of knowing the character of the institutions affecting his life, the study of civics should develop public spirit and inspire to useful public service through the example of public men whose work is brought within the understanding and appreciation of the pupil.

TEACHERS' AIDS

How Canada is Governed (Bourinot).

Municipal Acts.

The Canadian Almanac.

I. *The Family*.—The Social Unit.

Parents provide home, food and clothing, administer the home and regulate the actions of the family. Children are under obligation to parents for care and yield obedience with respect to behaviour and home duties.

II. *The School*.—A Public Organization.

Character, plan and aim of organization: Principal, teachers, pupils and classes; rules; administrations and instruction; development of industry, control, courtesy and the community sense and community obligation.

The principle of authority and obligation illustrated in the organization of the home and the school.

FORMAL CIVICS

I. *The Board of School Trustees*.—General purpose and function of the trustee body. Significance of the term trustee. Names of local trustees. Number on country, town and city boards.

How trustees are nominated. Qualifications, legal and natural, qualifications of voters. The conducting of an election, balloting.

Organization of Board; Chairman, Secretary-Treasurer; committees. Duties of Board: providing buildings and equipment, engaging teachers, supervisors, superintendents, janitors, truant officers and other officials, making rules for the conducting of the school, levying and collecting taxes (method in towns and cities), raising money by debenture, making returns to the Department of Education.

Mock election of trustees in school room.

II. *Municipal Government.*—

Cities and Towns, Villages and Local Improvement Districts. (Begin with local type.)

Need of local government. Names applied to members composing municipal bodies,—aldermen, councillors; names of local members, nomination and election, qualifications and qualifications of voters.

Interests Controlled in Towns and Cities.—Streets, sidewalks, water, lighting, street-car service, telephone, public order, protection of property and life, taxation and hospitals, charities, licenses, parks, etc.

Organization.—Mayor and aldermen, how elected, qualifications, and qualifications of voters. Commissioners in special departments, finance, public utilities, etc. Officials: Secretary, Treasurer, Auditor, Assessor, Collector, Medical Health Officer, Chief of Police, Magistrate, Building Inspector, etc.

Powers with respect to by-laws and regulations.

Mayor and councillors in towns.

Names of members of local council.

Nomination and election of councillors; qualifications and qualifications of voters; powers and duties, studied as in the case of cities with respect to by-laws and regulations.

Village Councils.—Members, number, names of local members, officers, powers and duties.

Local Improvement District Council.—Map of local district. Number of members and names of members in local council. Method of election. Qualifications of members and of voters. Variations in size of districts and in number of members of Council. Powers and duties of Councils. Large Local Improvement Districts and Councils.

Principle of self government illustrated in School Board and Municipal organization and powers exercised.

III. Introduction of terms Provincial, Federal and Imperial Government. Study to establish relations of local municipal organization to Provincial Government. Relation of Provincial, Federal and Imperial Governments. Representative heads; Lieutenant-Governor, Governor-General and Sovereign and law-making bodies. Sister colonies.

GRADE VIII.

I. *Study of Provincial Organization.*

Alberta.—*The Legislature.*—Number of members, local mem-

bers, qualifications of members and of voters, legislature term; elections, caucus, nomination, balloting, indemnity.

Organization of Legislature.—The party system, Government and opposition parties. Premier and Executive Council or Cabinet. How chosen, general functions.

Departments of administration: Minister of Public Works, Attorney-General, Minister of Education, Provincial Secretary, Provincial Treasurer, Minister of Agriculture. Present members of Executive Council. Deputies, powers and responsibilities. Common officers of the government,—School Inspectors, License Inspectors, Local Improvement Officers, etc.

The Legislature at Work.—Government and opposition; the Speaker. How laws are made; Bills and Acts; public and private bills; readings.

Sources of Revenue.—Taxes, subsidies, etc.

The Lieutenant-Governor.—How appointed; term of office; salary and maintenance; government house; summons, prorogues and dissolves the Legislature; how his duties are directed; assent and veto.

Variations in organization of Legislatures in different provinces,—one house or two house Legislatures.

The Law Courts.—Simple introduction of the function of courts in relation to legislative and executive functions explained by terms, law-making, law-enforcing and law-interpreting bodies.

II. *The Federal Government.*—Discussion of powers and duties in contrast with Legislatures. Basis of differentiation. Brief inspection of parts of B.N.A. Act, to show division of commoner duties. Use of the terms Parliament and Legislature, of M.P., M.L.A., M.P.P.

The House of Commons.—Number of members, distribution, basis of distribution, the census, term of office, members for Alberta.

The Senate.—Number, qualifications, term of office, how appointed; members for Alberta; general and special functions of Senate.

Organization of Commons.—Government and appointees,—the Speaker, the Premier and Cabinet. Departments of Administration, Trade and Commerce, Militia and Defence, Finance, Customs, Inland Revenue, Marine and Fisheries, Interior, Justice, Postmaster-General, Public Works, Railways and Canals, Secretary of State, Labor, Solicitor-General, Ministers without portfolio.

Legislation.—Studied as under Provincial Government.

Sources of Revenue.—Taxation, Customs Duties, Inland Revenue, Royalities.

The Governor-General.—Appointment, term of office, maintenance, relation to cabinet, etc., studied as under Provincial Government.

The Courts of Law.—General function of the courts of law. Courts, Magistrates, Justice of the Peace, District and Supreme Courts.

Trial by Jury, bail, pardons, plaintiff and defendant, etc.

The Imperial Parliament.—Made up of Commons, Lords and Sovereign. Fix by comparison. High Commissioner for Canada. Canadians in British House. The Imperial conference.

Forms of National Government.—

Great Britain. A Monarchy,—Hereditary, Constitutional. Other Examples.

Despotisms—examples.

Republics—examples.

Patriarchal Governments.

Public Meetings.—Simple rules of order for conducting of public meetings in relation to clubs, sports, etc.

COMPOSITION

The various forms of expressive and communicative activity are based alike on impressions received through eye, ear, and other sense organs. Whether the form of expression be instinctive movement, gesture, pictures, speech, or written language, the indispensable basis for every act is, in the first instance, clear and definite sense-impression. But one sense organ alone usually affords but a partial knowledge of an external object or situation: hence, there is, next, imperative need of co-ordinate impressions through sight, sound, touch or whatever other senses bring us ideas of anything in the outside world.

Thus, giving free play, progressively, to the various forms of utterance, from simple movements or inarticulate sound upward, we get, at length, the substance or content of language. Without this all-round sense basis, language would begin merely as meaningless symbols. But with this, the symbols soon associate themselves with the proper experience, and thus become adequate means of response to the experience.

Thus, we get the substance of language expression. For example, even a preposition, as “for” falls naturally into place as a concrete language instrument, as soon as the learner has had a clear experience of, e.g., “milk” and “pussy” in a certain relation to each other. This is the substance: the form of language expression is a matter of social convention, and is governed by the demands of directness, force and beauty. It is not hard to see, then, what should be the relation, in language teaching, between these two phases, the substance and the form: the latter should proceed in a column, parallel, so to speak, with the former, but always a little behind. No principles of form, or grammar, should be taught, at least in the first six grades, the need and occasion for which have not been developed in the practical substance work, or composition. Let the child realize through carefully guided every-day exercise, the use and relation of the language symbols; first through ear, in conversation and story; next, through eye and hand, in reading and writing; and finally

through judgment of the value of words and word-groups. Thus he learns to generalize through real experience; he learns the principles of form inductively. His own real needs of expression and communication furnish him with opportunities for observation of the function and relation of language forms; he has a living motive for reading and speaking correctly, and for writing letters and exercises; these tasks are not merely schoolroom drills. And thus, function and relation precede form and structure until, in the higher grades, he can attack the scientific principles of language directly.

To sum up, emphasize oral work throughout. The ear is for a long time the supreme test in language work.

Let the actual situation or experience of the child serve to furnish impressions and expressions for language substance, co-ordinate action, sight, sound, and touch as a basis for the spoken symbol; do not begin with "make-up" sentences.

Formulate, little by little, according as usages are realized and appropriated; in this way the much dreaded rules of grammar may be mastered in great part almost unawares, and they no longer depend on memory alone.

Develop the sense of motive in language work by encouraging the pupils to express themselves freely, by question and answer, story and description, to each other; provide for the writing and receiving of "real" letters to and from others at a distance; draw the material from experience in the whole day's work and play.

Finally, while the difficulties of penmanship are being mastered, avoid anything in written work beyond copying or transcription or dictation for the manual process is still exacting the major share of the thought. And generally, avoid loading the beginner with simultaneous burdens of thought, expression and penmanship.

GRADE I.

Conversation between teacher and pupil, and among pupils themselves, about home, toys, games, pets, natural objects such as sun, moon, stars; clouds, wind, weather; trees, flowers, birds, insects; day and night, planting seeds, etc. This serves to determine child's native stock of language material on entering school.

New Material: Stories about every-day life, fairy tales, nursery rhymes, child verses; home stories; stories of children of other races and lands and times (with pictures): Indians, Chinese, early settlers, Bible peoples. Teacher tells and afterwards conducts conversation as above.

Pictures: Well-known child pictures, home scenes, picture suggestive of a story, *e.g.*, "Driving a Pair," in Alexandra Primer. Conversation as above about pictures; story based on it.

Further oral exercises about the doll's house, the school garden, clay-modelling, simple dramatising, action-songs, and rythmical movements. New words taught through the visual, auditory, motor, or other sense experience that they signify: thus, such action or relation words as lend, give, sell; raise, carry; longer, shorter, etc.

Beginnings of written work on basis of previous oral work. Sentences by pupils about subjects suggested by teacher; written on board by teacher and copied by class; later, subjects only copied by class and original sentences called for, written on board as given, and copied by pupils.

Correct forms in the use of which error is most common, as "there is," "there are," "I saw," etc. Question forms, such as "Is there?" "Are there?" "Have I?" "Has he?" developed from corresponding statement forms.

Capital, period, question-mark. Capital for proper names, for the pronoun I and the exclamation O. Exclamation mark.

GRADE II.

Oral Work: Conversation about every day incidents; about trades and occupations; about stories and descriptions in Reader; about natural objects and occurrences, *e.g.*, putting forth and falling of leaves, flowering of plants, migrations and other habits of birds and common animals; about pictures, suggestive and descriptive, *e.g.*, "Piper and Nutcrackers," "The Eskimo Baby," in First Reader.

Free story telling by pupils, to teacher and to one another, using above material and also good stories from prescribed and supplementary readers and other good sources, told or read by teacher. Bible characters, legendary heroes, early settlers, etc. Oral reproduction in conversation exercises.

Written work: Groups of sentences about single topic. Sentences written in picture scrap-books to accompany each picture pasted at the top of page.

Command and request: correct uses of *lie* and *lay*, *did* and *done*, *saw* and *seen*, in sentences and always in connection with activity denoted.

Simple use of the coma, as in "Close the door, please." Simple abbreviations and contractions; period in the former and apostrophe in the latter and in possessive forms. Simple uses of the hyphen; dates and addresses.

GRADE III.

Oral work: Original stories based on pictures, personal experiences, simple impersonations, *e.g.*, as in "Story of a Drop of Water." Telling a story or describing a scene from different points of view (*cf.*, "Blind Men and the Elephant"). Stories of historical characters; talks about natural scenery, building operations, business and social and domestic activities.

Anticipate paragraph structure by having pupils tell about single topics in a whole story or description. Make use throughout of prescribed and supplementary readers as furnishing models of simplicity and rhythm.

Make use of motor expressions in connection with drawing, song, handwork, to furnish language material; drawing and pasting books with written stories or descriptions to accompany each entry.

Oral descriptions from memory and exercises to develop memory and imagination.

Written exercises following oral materials as above, in which the idea of the paragraph is suggested by grouping of sentences according to topic. Also suggest idea of unity in the sentence.

Letter writing: Form of letters and simplicity and taste in concluding to be emphasized. Addressing of envelope.

Further training in common forms: *rise* and *rose*; *raise* and *raised*; *sit* and *sat*; *a* and *an*; etc.

Type forms of questions, i.e., answered by "yes" or "no"; asking "who?" "which?" etc.; asking "when?" "where?" etc.

Whole subject and predicate as forming the two essential divisions of sentence, but not further analyzed.

Further uses of comma; interrupted quotations.

GRADE IV.

Oral work: previous material extended; closer correlation with other school work by insistence on clear and well-sustained answers; simple problems arising out of other work calling for solutions; situations calling for explanation; accounts of activities based on games, farm-work, home duties, daily scenes and experiences.

Exercises based on historical incidents and longer narrative. Accounts of field trips in nature study or geography, visits to industrial plants, activities in outdoor life, descriptions of travel.

Written exercises following above, and based on similar material; idea of paragraph made more explicit.

Invention: impersonation, *e.g.*, as in the story of City Mouse and Country Mouse, worked out on outlines suggested in class. Story about a suggested topic. Letters.

Definition of familiar objects after repeated observation of their use; definition of concrete terms. Practice in synonyms and antonyms.

Elements of form: Extending of pupil's ideas of clearness, force and rhythm in the sentence; easy complete sentences; correct uses of such words as "well" and "good," "fast" and "quick," etc., etc.

Exercises in agreement of subject and verb, without grammatical analysis; correct use of personal pronouns; simple homonyms.

All uses of period, and of question, exclamation and quotation marks; further uses of comma; colon before a series.

GRADE V.

Oral practice on material of previous grades. Paragraph extended orally and more clearly defined; connection in the thought of successive sentences in the paragraph. Description after study of object; easy off-hand description.

Written paragraphs of description from topic; series of paragraphs arising from natural divisions of whole subject, *e.g.*, harvesting, building a house, duties of each player on a team. Writing quotations.

Letter-writing: friendly letters, letters of thanks and acknowledgment; simple business orders; bills and receipts.

Choice of words; arrangement of words and phrases in relation to meaning.

The more common uses of *shall* and *will* and *should* and *would*. Drill on forms in the use of which errors are most common.

The simpler uses of the semi-colon.

GRADE VI.

Oral work: emphasis on clear, fluent and correct narrative and description based on personal experiences, incidents in history or literature, situations, real or imagined; short exercises with much variety.

Written work: as above, emphasizing the value of unity, sequence and proportion. Exposition of processes and principles in daily experiences. Series of paragraphs arising from natural divisions of whole subject, and showing consequent articulation; as in description of farm operations and industrial activities within experience of pupil. Also frequent exercises in making outlines alone for such composition.

Letters and business forms: informal social letters, mail orders; notes and drafts; advertisements, telegrams, news items.

Value of complex sentence as making main thought prominent. Value of compound sentences as balancing equally important thoughts. Exercises in changing from direct to indirect narration, and the reverse.

Use of auxiliary forms such as *can*, *may*, *must*, *must have*, ("must of" is a common error), *ought*, etc.

Argument: arrangement of material according to principles of unity, coherence, force, proportion. Distinction between argument and exposition. Rules for organized debate.

Study of forensic passages in Readers as well as of good articles and speeches on current questions. Qualities of persuasiveness, force, humor, picturesqueness and vividness observed in good models.

Self-criticism and mutual criticism by appeal to ear (chiefly), to eye, and to judgment (*e.g.*, in argument); no written work accepted for examination until it has been read aloud by the writer or to him by another—the ear is the supreme test.

Distinction between words nearly synonymous. Correction of colloquialisms and provincialisms. Freshness and naive truth of wording, avoidance of hackneyed phrases. Construction of prepositions with other words according to standard idioms, *e.g.*, "different to," "in accordance with," etc.

Much practice in letter-writing, emphasizing directness and conciseness in business letters, and freedom and good taste in informal correspondence. Official salutations and addresses.

All common business forms and abbreviations.

Use of the colon. Practice in use of all punctuation marks.

Further uses of semi-colon.

GRADE VII.

Continued insistence on good oral expression in connection with daily work.

Oral exposition: debates on school and current topics; exercises based on lessons in civics, as, conducting meeting, how public money is raised, departments of administration, etc.

Written work: more inventive exercise. General work in all forms of composition. Attention called to rhetorical value of the simpler figures of speech; making out plans of story or argument in order to make method explicit.

Force of varieties of sentence structure; when to use the complex and when the compound sentence. Care in choice of words and expressions; qualities requisite in the paragraph.

Practice in letter-writing of all kinds.

Force of optative and conditional forms; sequence of tenses.

Double quotation marks, *i.e.*, a quotation within a quotation; italics; drill in all forms commonly involving errors.

GRADE VIII.

Oral exercises: more lengthy narrative, well arranged and vivid description, clear exposition.

Study of the principles of narration from good models: chronological sequence, plot development, approach to climax; unity, coherence, balance, emphasis; study of above in prescribed and other literature; original short stories.

More extended or elaborate exposition: unity, coherence, emphasis; factors of clearness; separate explanatory and descriptive accounts of the same object of experience. Good models from prescribed and supplementary readings.

GEOGRAPHY, NATURE STUDY AND AGRICULTURE

Scope. Geography teaching is the channel through which the pupil gets a knowledge of the world far away and near including the earth itself (taking account of land, water and the air), animate and inanimate nature, man and his activities and the elementary aspects of his political organization. In general view geography is the natural science subject of the public school.

Geography and Nature Study. A difference is sometimes made between geography and nature study on the basis of one being a formal body of organized knowledge of general character on the one hand and of the other being concerned with incidental, local and perhaps minute nature on the other hand, or of one being essentially a study and the other a method. As the materials of both subjects for the earlier years of school, however, are common and cannot with advantage be separated, and

as the near observation method is appropriate to both, the subjects are combined during the first half of the public school period.

Formal Geography and Agriculture. In the fifth year the geography becomes more formal and takes account of larger physical, commercial and political relations for the remainder of the course. The institution of the school garden is made a necessary part of the nature-study work in the fifth and sixth grades, and is accessory to the definite elementary soil and plant science of the seventh and eighth grades. The term agriculture might just as suitably be horticulture. The work in agriculture is not intended to be specifically vocational and may serve the home-maker or gardener in town equally with the person living and working in the country and give valuable science training to both. In the absence of bench equipment in rural schools, it is of manual training aspect and may parallel the subject of sewing for girls if this is found convenient in the organization of rural work.

Method. The combination of geography with nature study is one way of emphasizing the field method of instruction. While formal geography involves large projection on the part of the pupil, there is much material belonging to the first four years of the course in both subjects, and to all of the nature study and agriculture, that is wholly suited to field and laboratory methods. Adequate treatment of the course demands much outdoor teaching. The general aim of the teacher in relation to the nature study side of the course is the awakening of interest by the encouragement of observation and in relation to the agricultural side is to develop a recognition of use on the basis of understanding. As agriculture is an applied science understanding should be secured by experiments with soils and plants in the schoolroom, school garden, home garden and farm.

In the teaching of geography other than local, liberal use should be made of literature, pictures, etc., relating to travels, natural features, and the habits and activities of people in other lands.

Industrial Studies. The course should not be looked upon as inflexible or exhaustive. It should be modified or expanded to take account of conditions and activities in different parts of the province or in cities as distinguished from the country.

GEOGRAPHY AND NATURE STUDY

GRADE I.

Direction and Time.—Direction as ascertained from the position of the sun at morning, midday and evening. Cardinal points. Use of terms day and night, morning and evening, forenoon and afternoon, midday and midnight.

Weather Observations.—Kind of day—hot, cold, cloudy, sunny, rain, snow, mist, fog, hail, etc.

Plants.—Picking and arranging of bouquets of wild and tame flowers for schoolroom decoration. Recognition of two varieties each of tame and wild flowers from sweet pea, pansy, nasturtium, poppy, golden rod, aster, crocus anemone, violet, and one variety of tree from poplar, cottonwood and Manitoba maple.

Animals.—Movements of animals. Lists on basis of characteristic movement from observation of robin, pigeon, hawk, duck, goose, fish, horse, coyote, rabbit, etc. Recognition of robin, sparrow, pigeon and blackbird.

GRADE II.

Direction and Time.—Fixing the direction of places in relation to the school. Teaching semi-cardinal points and local application. Direction of roads, streets, rivers, streams or other local features.

Time.—General idea of the measurement of time from the position of the sun at noon. Clock reading.

Weather.—Continuation of observations of weather daily, also direction of winds and storms. Records by teacher. Idea of prevailing winds from weather records. The seasons and seasonal activities. Winds, calm, breeze, gale, hurricane, storm.

Plants.—Learning of the parts of plants from the varieties observed in Grade I, root, stem, leaves, flower and fruit, also the parts of trees. Recognition of varieties extended and observation of places in which they are to be found.

Animals.—Habits of animals. Changes in coat and migration and disappearance of animals with changes of season. Food and homes of animals, robin, coyote, etc. Concrete study of habits—nesting, feeding, etc., of one common bird.

GRADE III.

Map Work and Conventional Direction on Maps.—Map of school room and school grounds. Position of objects in school-room and of school on school grounds. Extension of map to include neighboring streets and roads, other buildings, land and water features, etc.

Weather.—Observations continued. Individual records of weather conditions.

Vapor Phenomena.—Clouds, rain, fog, mist, dew, sleet, snow, hail, ice. Simple observation of these phenomena.

Forms of Land and Water.—Such of the following as are found locally: lake, pond, slough, bay, creek, river, strait, island, peninsula, isthmus, coulee, bench and bottom lands, cutbank, butte, hill, mountain, valley, pass, base, peak, plateau, cliff, promontory, etc. Field work necessary.

Plants.—Study of plants in relation to habitat, dry and wet places, in water, in sunlight, in shade. Field work necessary. Further recognition of varieties of trees. Shrubs—Saskatoon, Raspberry, Gooseberry, Blackberry, Black Currant. Trees in re-

lation to habitat: Cottonwood, Poplar, Spruce, Willow, Jack Pine, Evergreen and deciduous trees. Field observation.

Animals.—Simple study of adaptation of animals for characteristic movement and food securing. Concrete study of the habits in home making, feeding, etc., of the rabbit or gopher. Recognition of other varieties of birds according to locality and season: snowflake, chickadee, English and song sparrow, woodpecker, Canada jay (whiskey jack), mallard and teal, prairie chicken and ruffed grouse, muskrat, jackrabbit, squirrel, chipmunk and kit fox.

GRADE IV.

Forms of Land and Water.—Complete study of forms of land and water named for Grade III by field work where possible.

Map Work.—Extension of map work to take account of school district or municipality.

The Earth as a Whole.—Shape. Great land and water divisions. Names of continents and oceans. Comparison as to position, size and shape. The globe and the map of the world.

Rotation.—Axis and poles. Equator. Cause of day and night.

Revolution.—Course about the sun. The north star. Torrid, temperate and frigid zones. The seasons and their causes. Characteristic plant life of the different zones. Races—characteristics and activities generally.

Plants.—Review of parts of plants, simple uses of parts in plant economy: anchor function of root, support by stem, fruit from flower, etc. Recognition of plants extended to include silver weed, milk vetch, wild bergamot, shooting star, everlasting pea and shrubs; wild rose, honeysuckle, cranberry and choke cherry. Plant records.

Animals.—Recognition extended to include garter snake, rattlesnake, bat, toad, frog, bee, wasp, butterfly, dragon fly, grasshopper, beetle, mosquito and fly. Birds: Recorded lists of all-the-year-round birds, winter visitors and summer visitors. Records of first appearance and of disappearance of migrates.

GRADE V.

Plants.—General economy of plants in the support of man and animals. List on basis of different uses. Plants studied as to parts used: beet, turnip, carrot, etc., potato. Fruits: apples, plum, cherry, berries, Saskatoon; Grain, grasses and clover; trees, hard and soft wood.

The School Garden.—Class or group allotment of work in growing of common vegetables in pupils' plots. Preparation of seed bed, planting, care, harvesting and economic disposal of products. General demonstration plot under direction of teacher. Good and poor preparation, care, etc. Comparison of results. Decoration: flower pots, borders, shrubs, tree planting and care of grounds. Encouragement of home gardening and plant growing.

Animals.—Study where possible of habits of animals not inimical to men: deer, antelope, moose, chicken, grouse, duck, etc. Their conservation. Birds as destroyers of insects and weed seeds: robin, swallow, redpole, snowflake, etc. Metamorphosis of frog and of cutworm or other moth, and of butterfly.

GRADE VI.

Plants.—Examination and making of list of known trees, shrubs, and plants related to the area selected for close physiographic study in Grade V. Teaching of annual, biennial, and perennial habit of plants from spring grains, nasturtium, replanted turnip or carrot, timothy, alfalfa, currant, etc. Definition of weed. Illustration. Recognition of a few common weeds.

School Garden.—Class allotment of work in pupils' plots. Elaboration of plot plans and choice of things grown by pupil. Elaboration of design in form and color for decoration. Planting, care and harvesting and economical disposal of products as in Grade V. Care of plants for school room decoration. Planting of trees and care of grounds.

NATURE STUDY—GRADE VI (Continued).

Animals.—Examination and making of lists of known animals, birds and insects related to the area selected for close physiographic study in Grade V. Conservation: combatting of destructive forms in animals—coyote, wolf, bear, gopher, mouse, cowbird, cutworm, wireworm, potato, beetle, plant louse, etc.

AGRICULTURE—GRADE VII.

The Soil.—The home of the plant. Subsoil. Origin of soil. Classification of soils. Properties of soils. Color, weight, texture, moisture-holding capacity, adhesiveness, temperature. Studies to be concrete by use of samples, school garden and field work.

The Plant.—Conditions of germination—heat, air and moisture. Conditions of growth,—heat, air, moisture, light and drainage. Experiment and observation in the school room, school garden and neighborhood with respect to the influence of different conditions of light, heat and moisture. Plant feeding, transpiration, etc.

GRADE VIII.

The Soil.—Cultivation—seed bed, seeding cultivation for admission of air and for receiving and retaining moisture, destruction of weeds, etc. Drainage. Irrigation. Soil depletion and restoration. Principles taught through practice and observation in growing school plants, in work of school garden and in field crops.

The Plants.—The practice of growing representative kinds of roots, vegetables, bulbs, cereals, flowers in pots, school garden and home garden. Small fruits. Fruit and shade trees. Shelter belts. Recognition and effective destruction of common local

weeds. Methods of propagation of plants,—seed, stem-cutting, root-cutting, suckers, runners, and tubers.

GEOGRAPHY—GRADE V.

Canada.—Study of North America as to position, shape and size, structure continental elevations and basins, position in relation to zones, general climate, productions, people and activities. Maps. Peoples occupying continent. Tracing of International Boundary.

Thorough study of surface features of Canada, elevations, drainage systems, general climatic conditions, and climatic divisions, people, industries, surplus products, and additional needs. Exports, imports, centres, trade routes within the Dominion, with greater emphasis on Alberta. Maps.

Review of history relating to establishment and growth of Dominion by organization of provinces. Provincial capitals, maps. Plan of government.

United States.—Comparison of general climate with that of Canada. Study of productions and industries of state groups. Atlantic, north, middle and south; north and south Mississippi states; plateau states; Pacific states. Exports and imports, great centres, transportation routes, nature of exchange with Canada. Dependencies, names only.

Winds, Currents and Tides.

South America.—Comparison with North America as to size, shape, location in relation to zone, climate, productions, people and activities. Relations with North America in exchange. Trade centres and exchange routes. Maps.

Mexico and Central America.—Surface, climate and productions briefly.

Local Physiography.—Close study by field work, map study and map construction of stream or river as to source, direction and destination, drainage area, character of banks, right and left, soil, subsoil, abundance or scarcity of vegetation. Description.

GRADE VI.

British Isles.—Review study of Europe as to position, size, comparison of structure with western continents, structural relation to British Isles, productions, people, activities, important countries. Maps.

Thorough study of surface features, climate, productions, people and activities of the British Isles. Establishment of British commercial supremacy. British Industrialism, manufacturing and agriculture, the Live Stock farm of the world. Manufacturing centres, centres of special industries. Nature and scope of exchange. Trade statistics. Maps.

Asia.—Size, structure, comparison with western hemisphere, climate, production, activities, trade, important countries, great centres, exports and imports.

Africa.—Similar study to that relating to Asia.

Australasia.—Similar study to that relating to Asia.

Climate.—Causes affecting climate. Illustrated from all the countries of the world.

GRADE VII.

British Possessions.—Careful map construction, comparative study of area, resources, population, characteristic activities, nature and extent of trade among the great colonies. Nature of exchange with Great Britain. Strategic possessions. Political relation of the colonies to the Imperial Government.

Alberta.—Close study of structure surface features, drainage, natural resources, industries and trade of Alberta. Special climate study. The chinook. Chief cities. Water, rail and trail routes. System of survey. Maps. Intensive study of the work of the rancher, miner, trapper and fur trader. Industrial transformations.

Vapor Phenomena.—Teaching of clouds, rain, mist, fog, dew, snow, hail, sleet, etc., causes, by careful experiment and demonstration.

GRADE VIII.

Review of Geography of the countries of the world, with special reference to exchange as the outcome of characteristic resources and activities. Simple plan of government in type states or countries.

Trade routes of the world. Careful map construction.

Latitude, Longitude and Time.

DRAWING

Scope and Purpose.—The work includes object, illustrative and nature drawing, drawing to scale, lettering, color study and color work, and the study of art works. The object of the course is to develop a capacity to use drawing as a common means of expressing ideas in masses, lines and colors, to increase the capacity of the pupils for the enjoyment of art and of nature through art, and to develop taste and accuracy in industrial work. The work may appeal to talent but should be valuable to all pupils on general grounds. It should be an expression of daily experience whether from casual observation, directed attention, incidents in daily life at home or at school, or from studies.

The Course.—While all drawing resolves itself ultimately into representation, for convenience in teaching by organized progression, the subject is dealt with under representation, decoration, color and construction, the last named subject having relation principally to the need of correlating drawing and the constructive or industrial work of the two upper grades of the school. Decoration is an application of representation through the conventional employment of types used in object drawing. While color is made a separate topic and formal elementary lessons in

color seem necessary, it is expected that the subject of color study will progress step by step with the work of representation and it should be studied with a view to progressive application to this work.

Progression in Art Study.—There is no wide difference in the character of the work or in the educational results secured in the teaching of art in various grades of the public school, apart from the utility aspect of the subject as an aid to manual or industrial work in the upper grades. There is, however, a difference with respect to the application of principles to practice in the upper half of the school period in contrast to the work of the lower half, and some difference with respect to freedom in the matter of allowing for individual choice.

In the main, the office of the teacher in the lower grades is to arouse interest in the pupil towards using the crayon or brush as a means of expression, coupled with the securing of manual facility and the recognition and appreciation of color. In the fifth grade, the formal principles of perspective, light and shade, and compositions are introduced, outdoor sketching is carried on, and greater complexity involved in the color work in relation to representation and decoration. In the upper grades considerable elaboration in decoration and design is expected; considerable progress should likewise be observed in the art quality of pupil's work, and the employment of scale and plan work is made a part of the course for the last two years for the sake of those who do not secure this training in manual training departments.

Materials.—The materials and utensils employed are as follows:—The blackboard for free arm exercises, rough paper, drawing books in white and colored papers (not less than ten by twelve inches), and sketching pads about six by eight inches. Soft crayons (other than wax), and including charcoal, are required for the first two years' work. H. B. pencils for all grades. A No. 6 (Reeves & Sons') brush is the most generally useful for all grades, with a No. 4 added for the upper grades. Color boxes in four colors for the first four grades and in six colors for the four upper grades, with a tube of white for use with colored papers added, will be sufficient. Reeves & Sons' (Dalston, London, Eng.), materials in brushes, color boxes and papers are recommended throughout on account of their superior quality and low cost.

For teachers' use, the course of the Prang Series of Text Books in Art Education will be found in close relation to the course, the numbers running parallel with the numbers of the grades, but with text book No. 7 answering to both grades VII and VIII. Suggestions for illustrative drawing may be found in various primers such as the Aldine (Newson & Sons, N.Y.), Step by Step (Ginn & Co., N.Y.), and the Sunbonnet Babies (Rand, McNally & Co., Chicago).

GRADE I.

Representation.—Illustrative drawings; free illustration related to the child's experience and to stories. Common objects, such

as fruits, in line and mass. Simple landscape. Object drawing. The sphere and cylinder.

Decoration.—Border using for repetition geometric figures, square, circle, etc., and simple, conventionalized, natural forms, booklet, valentine.

Color.—Study of standard colors. Use in design and in representation.

GRADE II.

Representation.—Illustrative drawing: Suitable for class and season of the year. Object Drawing: Common objects in line and mass. The hemisphere. Memory Drawing: Common objects, simple landscape. Picture study.

Decoration.—Easy patterns using geometric figures and conventionalized natural forms as units of design. Christmas booklet or card. Simple lettering.

Color.—Study of six standard colors. Flat washes in ink and color. Application to design and representation.

GRADE III.

Representation.—Illustrative Drawing: As in second year. Object Drawing: common objects, fruits, vegetables, and leaves. The cube, simple memory drawing; animals in mass, games, Simple landscape.

Decoration.—Conventionalizing of simple natural forms. Use in decoration of hand work. Simple lettering.

Color.—Review color work of second year. Color schemes from nature used in design.

GRADE IV.

Representation.—Illustrative Drawing: Exercises in composition in line and in mass. Object Drawing: Trees, groups of leaves or fruit, animals. Use of type forms, the cube, cylinder and sphere in their application to object drawing and for the study of light, shade, and perspective. Landscape. Memory Drawing: objects mentioned above. Picture study and life of artist.

Decoration.—Continue conventionalization of natural forms. Decoration of hand work. Lettering.

Color.—Complementary colors. Effects of different combinations of color.

GRADE V.

Representation.—Illustrative Drawing: Related to other school subjects. Continue studies in composition in line, values and color. Continue study of perspective from outdoor and indoor examples, and by the collection of sketches illustrating its rules. Memory drawing.

Sketching from Window.—Quick sketches of animals or from pose. Flowers and fruits in pure color and from direct handling. Picture study and life of artist.

Decoration.—Simple historic ornament of Egypt. Book cover. Calendar.

Color.—Review: Neutral values of colors.

GRADE VI.

Representation.—Illustrative Drawing: As in fifth year. Rules of perspective illustrated. Memory Drawing. Sketching on door from pose. Landscape. Picture study and life of artist.

Decoration.—Simple historic ornament of Greece. Decoration of border. Simple surface pattern.

Color.—Review former color work. Greyed colors.

GRADE VII.

Representation.—Representation of objects as in sixth grade. Illustrative Drawing: as in fifth and sixth grades. Memory drawing as in fifth and sixth grades. Sketching: as in fifth and sixth grades, and furniture sketching.

Decoration.—Simple historic ornament of Rome. Surface patterns from conventionalized natural forms. Individual work.

Color.—Review color. Make scales in full, neutral and greyed colors.

Construction.—Working drawings.

GRADE VIII.

Review of historic ornament of previous years. Continue each line of study with more attention to the underlying principles of beauty. More difficult working drawings. Pupils should work more independently, choosing and arranging models, selecting good compositions in outdoor work, and illustrating from a broader field. Criticism of work.

GEOMETRY

GRADE VIII.

A course in Practical Geometry intended to train the pupil in accuracy in drawing lines of required length, in measuring lines, in constructing angles of given magnitude, in measuring angles that are constructed and in the construction of geometric figures generally.

The year's work will provide an excellent foundation for the courses in Theoretical Geometry for the higher grades.

Instruments required: a ruler, a pair of compasses, a protractor, a pair of dividers and a set square.

The following is the proposed outline:

Geometrical elements: construction of triangles, equality of triangles; bisection of lines and angles; perpendiculars; theorems respecting the angles of a triangle; parallel lines; parallelograms, rectangles and squares; relations in area between parallelograms and triangles; squares on the sides of a right angled triangle; the circle, its symmetry; tangents; finding centre of a circle; tangents to circles, and circles touching one another; angles in a circle; relation between segments of intersecting chords; triangles in and about circles; circles in and about squares; squares and circles in and about circles and squares; regular polygons; similar triangles.

MANUAL TRAINING AND HOUSEHOLD SCIENCE

Scope and Aim.—The course includes stick laying, paper cutting, paper folding, cardboard construction, raffia and reed work and mechanical drawing; sewing and cooking, home nursing and the care of the home. The gardening and agriculture of the four upper grades of the school in rural districts have manual and industrial significance and bear upon occupational environment in a manner similar to the bench work of the town and city schools. While a definite course is set forth, it should be understood as being subject to suitable modifications to reflect local needs and conditions.

The object of the work is to give a new channel for the expression of ideas; to give hand and eye training; to develop constructive impulses, judgment, accuracy, resource, patience, industry, and a sense of symmetry, proportion and beauty by the artistic production of common things; to give respect for manual pursuits and encourage industrial efficiency.

Materials.—The materials required for the hand work below Grade VII are (1) Sticks of varying lengths from one to three inches being the standard lengths. They can be obtained from any kindergarten supply house; (2) Paper in sheets to be cut into squares of 4 to 6 inches, and of various colors for the two lowest grades, cover paper and cardboard for the three grades following, weaving mats of size 5 by 5 and 5 by 7 with quarter inch slits are the most useful sizes; (3) Raffia; (4) Reeds in sizes varying from 00 to 5 No's 1 to 3 being in most common use. Native reeds are available for coarse basketry in certain parts of the province; (5) Clay and Plasticine. Prepared terra-cotta or grey clay is the most suitable for modelling work. In some parts of the province native clay is found which is entirely suitable. Plasticine is cleaner to work with, but is used over and over again. Individual supply is necessary. The use of cheap clay permits the preservation of models. In clay or plasticine work oil cloth sheets, wrapping paper or modelling board 12 by 14 is necessary to save the desks. The utensils required are simple, consisting of

water tin or saucer, wire clay cutter, and small wooden tool with chisel edge at one end and saw edge at the other. (6) Soft woods, such as pine and basswood are best suited to the first year in bench work, and fir, oak and maple for the second year.

Individual Benches and Tools.—A satisfactory bench is 40 by 20 inches in length and is about 30 inches high, or it can be made adjustable. It should have a shelf the same size as the bench about a foot from the floor and a rack at the back to hold the following tools: backsaw, square, scribe, screw driver, gauge and three chisels 1 inch, $\frac{1}{2}$ inch, and $\frac{1}{4}$ inch. Each bench should be supplied with a hammer, steel rule, mallet, bench hook, fore-plane and brush. The bench should have an end to be constructed of glued inch strips. A class room should be equipped with twenty benches.

General Tool Equipment.—In addition to individual tool equipment a manual training room should have the following equipment for common use: Foot power grindstone, 3 rip saws, 3 crosscut saws, 2 coping saws, 3 smoothing planes, 1 brace and set of bits, 2 countersinks, 2 oil cans, 6 gouges $\frac{1}{2}$ inch, $\frac{3}{4}$ inch and $\frac{7}{8}$ inch; 6 mortice chisels $\frac{1}{4}$ inch, $\frac{3}{4}$ inch, and $\frac{7}{8}$ inch; 6 iron spokeshaves, 3 cabinet scrapers, two 8 inch steel dividers, 1 black-board compass, 3 varnish brushes, 3 oil stones, 3 slips for gouges, 1 rafter square, 6 bevels, 3 nail sets, 3 flat files, 1 mitre block, four 30 inch iron clamps, 4 hand wooden clamps, 1 matching plane.

Recommended Text-Books for Use of Teachers.

- Coiled Basketry. M. Swannell—Geo. Philip & Son, 32 Fleet St., London, England.
 Raffia Work. M. Swannell—Geo. Philip & Son, 32 Fleet St., London, England.
 Educational Handwork, with Supplement. T. B. Kidner—Educational Book Co., Ltd., Toronto, Ont.
 Hand Loom Weaving. Mattie Philips Todd—Rand, McNally & Co., Chicago.
 How to Make Baskets. Marey White—Doubleday, Page & Co., New York.
 Practical and Artistic Basketry. Laura Rollins Tinsley—E. L. Kellogg & Co., Chicago.
 Progressive Lessons in Needlework. Catherine F. Johnson—D. C. Heath & Co., Boston.
 Plastic Methods for Plastic Minds.
 Harbutt's Plastic Method—Mr. and Mrs. Harbutt. Chapman & Hall, London.—Domestic Science Reference.

MANUAL TRAINING

CITY AND TOWN SCHOOLS

Folding and Cutting Work in Paper.—Construction of very simple articles, including use of adhesives. Making conventional and nature borders for rooms. Story and rhyme illustration and mounting of same.

Clay or Plasticine.—In relation to number work, drawing and story-telling; connected intimately with home life.

Weaving.—Simple patterns in colored paper.

Stick Laying.—For form, color and number work.

GRADE II.

Cutting and Construction booklets, simple forms in flat, with easy cover design. Suites of dolls' furniture from light cover paper, based on folding to sixteen squares. Borders and illustrated stories.

Clay or Plasticine.—Extension of Grade I, modelling objects similar in form to type solids. Simple nature work.

Raffia.—Braiding and sewing into mats, hats, baskets, etc. Serviette rings.

Weaving.—Beginnings of textiles on cardboard looms, wrist-lets, dolls' articles.

GRADE III.

Cardboard Construction.—Introduction of the rule as a scale with divisions as low as quarter inches. Measuring and drawing upon cardboard squares or oblongs. Boxes, wall pockets, trays, baskets, pasting, lacing or tying. Decorating.

Clay or Plasticine.—Hollow representation of household and familiar articles. Nature forms with more attention to surface details. Relief design. Free modelling.

Raffia and Reed.—Combined use in mats. Concentric design only.

Weaving.—Simple construction of textile articles on cardboard or wooden framed looms-caps, bags, rugs, etc.

GRADE IV.

Cardboard Construction.—Simple geometrical drawing of developments using triangle and compasses, natural and half size scales, importance of developments in industrial life—tailoring, tinsmithing, sheet metal cornices, etc. Beginning of principles of design applied to articles made.

Clay or Plasticine.—Sections of fruit, etc. Simple studies in relief. Animals from pose or picture, in relation to Geography and History. Free Modelling.

Reed and Raffia.—Winding in colors to produce radial design. Lazy squaw stitch only. History of raw material used.

GRADE V.

Advanced Cardboard Works.—Construction in heavy Bristol or millboard (old show boxes). Covering and binding with marble papers, end papers and binding linen, boxes, trays, folios, blotting pads, etc. Relation to industry and history of materials used.

Reed and Raffia.—Varieties of stitches, as Peruvian, West Africa, Nigerian, Samoan, Fuegian and Pima. Reed basketry. Raffia knotting.

Clay or Plasticine.—In this and more advanced grades—used as an aid in Geography and Art. Free Modelling.

GRADE VI.

Boys.—Simple processes in the accepted industrial methods. Designing and tooling small mats and purses.

Basketry.—Waste paper baskets and larger articles from reed and rush where procurable.

Bench Work.—Introductory topical study of forest areas. Classes of timber. Drawing to scale.

GRADE VII.

Boys.—Benchwork in wood:—Drawing; plan and elevations. Reading blue prints, materials, wood growth, distribution of Canada's forests. History of lumbering processes. Some methods of seasoning. Some faults and defects of timber. Tools; uses, care and sharpening. Operations; course of joinery, (six months), to master tool processes. Class teaching largely, developing later in the year into individual projects and personal instruction.

GRADE VIII.

Boys.—Benchwork in wood, and wood combination with other materials. Reviews and added materials on wood structure. Quarter and radial cuts. Comparative strength of wood under differing dimensions and conditions. Faults and defects. Seasoning. Theory of nails, screws, bolts, glue, etc. Computation of raw stock and cost. Finishing, communal work for school or philanthropical purposes. Operations, furniture, simple upholstery, caning, sheet metal trimmings.

RURAL SCHOOLS

The rise of manual training as a school interest has come primarily from the need of balancing up the work of the city schools by some kind of motor exercise and training, and such courses as have been adopted relate chiefly to urban schools. It would appear desirable to give recognition to this type of training in all schools. The general training of the country pupil in judgment and practical resource from outdoor occupation makes an elaborate course unnecessary and the limitations of the one-teacher school make the treatment of an elaborate course impossible. Of the various courses in stickwork, paper and cardboard, weaving and basketry, and modelling, stickwork is applicable to both country and city schools, and of the other single courses suitable for country schools, clay modelling is to be preferred by reason of its art rather than manual significance and on account of the simplicity of its material. One course is perhaps sufficient for the rural schools but freedom in the

choice of courses is both desirable and necessary in relation to the taste and training of teachers. In the upper half of the school the school gardening and plant and soil science have a common value to the sexes and have an industrial bearing, but needlework might be introduced for the girls and a single bench and tool equipment for boys at the option of school boards. With teachers trained as at present it is clear, however, that success in both of these cannot be expected and the sex of the teacher would determine which one would succeed.

Single Bench Equipment for Country Schools.

Simple bench with vise, tools, cross cut and rip saw, backsaw, foreplane, chisels $\frac{1}{4}$ inch, $\frac{1}{2}$ inch and 1 inch; gouge $\frac{1}{2}$ inch, rule, square, bevel, gauge, brace and bits, coping saw, hammer, mallet, screw driver, rasp, flat file and saw file.

COURSE

GRADE I.

Sticklaying.

GRADES I and II.

Clay Modelling.—Natural and common objects based on the sphere and cube taken in relation to drawing, number work, and nature study, ball, apple, cherry, cube, domino, leaf forms. Free modelling.

Or Paper Work.—Illustrative paper cutting related to drawing, nature work and story telling. Use of adhesives for mounting. Elementary design.

GRADES III and IV.

Clay Modelling.—Natural forms—fruit, vegetables, leaves, etc. Common objects—solid and hollow representation of cup, vase, flower pot, etc. Work in relation to Geography. Free Modelling.

Or Cardboard Work.—Heavy paper or thin cardboard used in the construction of boxes, wall pockets, geometrical solids. Simple decoration. Design. Use of the rule to quarters and eighths.

GRADES V and VI.

Clay Modelling.—Natural Forms—Leaves, twigs, sections of fruit. Annual studies. Common objects—shoe, glove, etc. Relief maps.

Or Cardboard Work.—Heavy millboard or Bristol paper used in the construction of boxes, trays, blotting-pads, etc. Paper and linen linings. Principles of design. Use of the compasses and set square.

GRADES VII and VIII.

Agriculture and School Garden; or Bench work and needle work adapted from course for town and city schools.

MUSIC

Scope.—The course in music is made up of rote singing, progressive mastery of the mechanics of music, systematic voice culture and sight singing.

The object is to teach the right use of the voice by exercise in tone production and to develop an appreciation of melody and harmony. Incidentally, music should aid language by improving articulation and by giving flexibility and expressiveness. It gives force to the sentiment of poetry.

General Method.—The rote singing of the lower grades should give the child an appreciation of melody and rhythm. The essential features of voice training in the lower grades is the securing of voice control by soft singing. The soft use of the voice is likewise the beginning of appreciation and taste. Formal teaching of rudiments should be introduced from the beginning. Rounds should begin with the fourth grade and two part songs with the fifth. The poetry should likewise be progressive beginning with the kindergarten or game songs and season songs and ending with glees and patriotic songs. Individual work should be done in all grades. Breathing exercises should be frequent and attention should be given to correct position before beginning and during all exercises. There should be large attention paid to phrasing and interpretation in the last year of the school period and at the end of the public school course pupils should be able to sing music of ordinary difficulty at sight. The minds of the children should be at work during the music lesson. In the lower grades free use should be made of music at other than regular periods to give change and relief to ordinary work.

Text Book—

The King Edward Music Readers, Part I, II and III. Recommended for teachers' use for supplementary songs:

- (a) St. Nicholas Song Book, (Primary Grades)—The Century Company.
- (b) Kings and Queens—Book of Songs and Games—(Primary Grades)—McDougall Educational Company, 8 Harrington Ave., E. C. London, England.
- (c) Games for Little Ones—Oliver Detson, Boston.
- (d) Fifty Children's Songs—Schirmer & Co., New York.
- (e) Murdoch's School Songs, (Intermediate Grades.)
- (f) Murdoch's School Songs Series B (Upper Grades), Murdoch, Murdoch & Co., 463 Oxford St., London W., England.

COURSE

GRADE I.

Rote songs including action, nature, season and lullaby songs. Scale singing, scale songs and the doh chord.

GRADE II.

Rote songs similar to those of Grade I sung with better tone and expression. Intervals of the major scale.

Simple songs learned from interval notation.

GRADE III.

Interval and time drill.

Staff introduced. Names of notes represented by lines and spaces. Key of C scale and scale from modulator compared. Patriotic and season songs in unison.

GRADE IV.

King Edward Music Reader, Book I, Part I. Moveable doh introduced. Interval work from stall as each key is introduced. Measures, time signatures, notes and corresponding rests. Songs in unison. Rounds introduced.

GRADE V.

King Edward Music Reader, Book I, Part II. Review of Key signatures and time signatures. Simple transposition exercises.

Use of dotted notes, rests and pauses.

Songs in unison. Two part songs introduced.

GRADE VI.

King Edward Music Reader, Book II, Part I. Use of evenly divided beat. Construction of Major scale. Evolution of Key signature. Songs of this and following grades should be of a kind to develop good musical taste and familiarize pupils with good works.

GRADE VII.

King Edward Music Reader, Book II, Part II. Use of unevenly divided beat. Transposition exercises of increasing difficulty.

Three part songs introduced.

GRADE VIII.

King Edward Reader, Book III. Construction of Minor scales. Modulation.

PHYSICAL CULTURE AND MILITARY TRAINING

SCOPE OF THE COURSE

The course includes class tactics, marching, elementary drill, free gymnastics, kindergarten games, figure marching with dance steps, dumb-bell drill, wand drill, Indian club drill, fire-drill, stationary apparatus work, track and field athletic sports, basketball, hockey, and other league sports, squad drill, skirmishing, rifle drill, company drill and target practice.

AIMS OF PHYSICAL CULTURE

The object of the work is to give right physical development and to correct physical defects by attention to movement and to sitting and standing positions; to counteract morbid tendencies by creating a habit of physical activity; to develop a capacity for corporate action by discipline and the practice of prompt obedience; to promote grace of movement; to give muscular development; to teach courtesy and to afford relaxation from school routine.

Organization of the Course.

Physical culture should have a recognized and fixed place on the time-table of school work but as one of its aims is to afford relaxation and to bring about better conditions for mental work, considerable elasticity as to the time of having exercises should be allowed. It should be given at such times and to such extent as may seem desirable when it will be a wholesome break in the routine of school work. The duration of a regular exercise lesson should vary from 10 to 30 minutes, according to the age of the pupil. A half hour in solid exercise is rather long, but with special subjects time is usually lost in preparation or in moving to and from the class room to the place of exercise.

While it is to be understood that a change from mental to physical work is a relaxation for the pupil it is not to be supposed that the change means a relaxation of attention but only that the point of attention is changed. Three necessary features of satisfactory work in physical exercise are silence, steadiness and precision and for these attention is indispensable.

The progress of the pupil through a right course of physical training will be marked by a greater elaboration as he goes on, which will be rather apparent at the beginning of the fifth year but all the higher phases of work will have a corresponding basis and growth in the four earlier years. The first four years' work will consist in the main, of what we may call free gymnastics. At the beginning of the fifth grade in town and city schools, where greater elaboration is both necessary and possible by reason of the greater time devoted to the work, light apparatus consisting of dumb-bells, wands and Indian clubs should be introduced, and in the last two years a small equipment of fixed

apparatus consisting of parallel bars, horizontal bar, flying rings, climbing rope, trapeze and vaulting horse will be found equally desirable. The difference between city and country limits of work is indicated by alternate sections in the course. In the upper four grades of the school the use of the wands, dumb-bells and clubs applies equally to girls and boys. In the case of the girls in the last two years special attention should be given to exercises in deportment and carriage by figure marching, drills, etc., and to the development of sound, active bodies by such games as basket ball, etc. In the case of the boys, the same results should be attained by Cadet training, field and athletic sports.

A properly organized system of Fire Drill should be practised in all town and city schools as a precaution against panic among the children in case of a fire occurring in school during the time school is in session. A circular suggesting the manner of carrying out Fire Drill can be secured from the Department.

Variation of Work According to Season.

Physical training should be adapted to changes in season. In the junior grades tactics and marching should receive attention in the spring and autumn months and gymnastic exercises in the winter months. In the higher grades track and field sports, squad drill and skirmishing should be taken out of doors in autumn, and dumb-bell, wand, apparatus and rifle drill indoors in winter. In the spring basketball, baseball and cadet training should be taken out of doors.

Directions for Conducting Physical Exercises.

In order to secure the best results from physical training in schools certain conditions are necessary. In the first place, a temperature that is suitable for pupils while sitting is too warm for them while taking exercise. When the season and weather permit physical exercise should be taken in the open air. When they are taken in the class room the windows should be opened to admit fresh air and to reduce the temperature. Pupils will not suffer from a considerable lowering of temperature if they are put into active bodily exercise. A temperature above 60 degrees is unsuitable for physical exercises. If pupils cannot be taken outside, an assembly room is preferable to the class room on account of the obstruction to free movement caused by the desks. It is likewise a change of air. Pupils should not be permitted to exercise with wraps or rubbers on. In the case of boys it is advisable to have them remove their coats. Most pupils are benefited by vigorous physical exercise. Delicate pupils, however, should not be obliged to take more exercise or to exercise more vigorously than they can do easily and pleasantly. Up to the end of the fourth year in school the same exercises are suited to both sexes. After the fourth grade the sexes may be separated. Much of the benefits of this work is of an incidental character. Close attention should be paid to the sitting and standing position of the scholars and lying down

in seats should not be permitted. All class tactics particularly those entering and those of dismissing can be made of great disciplinary importance. Good marching, silence and steadiness should always be insisted upon. Teachers can also do a great deal in encouraging little actions of courtesy such as raising their caps to ladies, saluting gentlemen acquaintances, closing doors, picking up articles which have fallen, etc. All calisthenic exercises should be made pleasurable to the scholars particularly in junior rooms where relaxation is one of the chief ends of this work. Kindergarten games and songs should have a prominent place. The children should be taught a number of good songs to sing as an accompaniment to marching.

Equipment.—The question of equipping relates essentially to town and city schools beyond the provisions of jump stands, basketball goals, football goals and such equipment as is supplied to cadet companies are possible in country schools. The following represents the most that should be furnished.

One Vaulting Horse, 1 Parallel Bars, 1 Horizontal Bar, 1 Flying Ring, 1 Climbing Rope, 1 Trapeze, 5 Mats, 1 Spring-board, 50 pairs Indian Clubs, 50 pairs Dumb Bells, 50 Wands, 1 pair Jump Standards, 1 Vaulting Pole, 1 Set Basket Ball goals, 1 Set Football goals, 1 Tug-of-War Rope.

Authorized Text.—A Syllabus of Physical Culture Exercises for Elementary Schools (Eyre & Spottiswoode), London, Eng.

Reference.—Freehand Gymnastics, Bancroft (Heath).

TOWN AND CITY SCHOOLS

GRADE I.

Class Tactics.—Morning and afternoon salutation to teacher. Rising and saluting when visitors enter. Sitting position of attention. Method of class standing. Standing position in the aisles. Taking distance. Method of marching in to places in room at hours of Assembly.

Elementary Drill.—Boys to lift the cap to ladies and salute gentlemen whom they know when they meet them. The direction Right and Left, etc.

Marching.—The Quick March, Halt, Marking Time, Slow March, Double March and Skipping in tune and rhythm to singing or other music.

Gymnastic Exercises.—Set I: Tables 1 to 9 of the Text Book.

Kindergarten Games.—Squirrel, Skipping, Tag, Chickadee, Observation, Hide the Thimble, We are playing together, Pussy White, The Jolly Miller, Silent Game, Caterpillar, Color Games, Occupation Games, Sandeman, etc.

GRADE II.

Class Tactics.—Tactics continued with greater accuracy of movement. Morning and afternoon salutation to teacher. Rising and saluting when visitors enter. Sitting position of attention. Method of class standing. Standing position in the

aisles. Taking distance. Method of marching into places in room at assembly hours. Method of dismissal.

Elementary Drill.—Boys to lift the cap when meeting ladies and to salute gentlemen whom they know. Saluting, Covering, Stand at Ease. Right turn, Left turn, About turn, with regard to direction only.

Marching.—The Quick March, Halt, Marking Time, Slow March, Double March and Skipping. Regular practice in tune and rhythm to music.

Gymnastic Exercises.—Set II: Tables 10 to 18 of Text Book.

Kindergarten Games.—Squirrel, Skipping, Tag, Chickadee, etc. Observation, Statue, Hide the Thimble, We are playing together, Pussy White, The Jolly Miller, Silent Game, Caterpillar, Occupation games, Color games, Sandeman, etc.

GRADE III.

Class Tactics.—Morning and afternoon salutation to teacher. Rising and saluting when visitors enter. Sitting position of attention. Method of class standing. Standing position in the aisles. Taking distance. Method of marching into places in room at assembly hours. Method of dismissal.

Elementary Drill.—Boys to lift cap when meeting ladies and to salute gentlemen whom they know. Saluting, Position of attention, Covering, Stand at Ease and turning with regard to direction only.

Marching.—Accurate marching in tune and unison. The Quick March, Halt, Marking Time, Slow March, Double March, Follow Step, Changing step alternately.

Gymnastic Exercises.—Set III: Tables 19 to 27 of the Text Book.

Games.—See Appendix A of Text Book.

GRADE IV.

Class Tactics.—Morning and afternoon salutation to teacher. Rising and saluting when visitors enter. Sitting position of attention. Method of class standing. Standing position in the aisles. Taking distance. Method of marching in to places in room at assembly hours. Method of dismissal. Accuracy in all class movements required.

Elementary Drill.—Boys to lift the cap when meeting ladies and to salute gentlemen whom they know. Saluting, Position of attention, Covering, Stand at Ease, Right turn, Left turn, About turn, Half right turn, Half left turn, Side step, Stepping back and about turn, Marking time. Careful teaching in this grade forms the foundation of all future work.

Marching.—The Quick March, Halt, Marking Time, Slow March, Double March, Skipping, Stepping out, Stepping short, About turn on the march, Follow step, Changing step, Keeping in step. Regular accurate marching in perfect step in all class movements.

Gymnastic Exercises.—Set IV: Tables 28 to 36 of the Text Book.

Games.—See Appendix A of Text Book.

GRADE V.—GIRLS.

Elementary Military Drill and Marching.—All the fundamental military movements of Grade IV reviewed.

Gymnastic Exercises.—Set V: Tables 37 to 45 of the Text Book. Dumb Bell Drill, Set I; Wand Drill, Set I; Indian Club Drill, Set I.—Easy sets of eight exercises each, of very elementary work with this apparatus to add variety.

Figure Marching.—Fancy figures such as eights, diagonals, spirals, squares, etc. Columbia Drill and Flag Drills to Music.

Basket Ball.—Out door Intermediate School League.

BOYS

Squad Drill.—All military movements of Grade IV reviewed. Marching in squad. The diagonal march. Changing direction. Marching as in file. Changing. Direction as in file. Forming up into squad from marching as in file.

Skirmishing.—Method of extending and closing, signals and whistle blasts. Practice in working by signal.

Scouting.—Reading Camp Fire Yarns from "Scouting for Boys." Scout games and playing Indian.

Field Sports.—Running Broad Jump; Running Hop, Step and Jump; and Running High Jump; 50 Yards Dash, 100 Yards Dash, Wheelbarrow Race; Fatigue Race, and Relay Race in preparation for Sports Day, about October 1st.

Gymnastic Exercises.—Set V: Tables 37 to 45 of Text Book. Or Dumb Bell Drill, Set I—a set of eight very elementary exercises.

Rifle Drill.—Slope Arms, Present Arms and Trail Arms.

Company Drill.—Proving the Company, Marching in Fours and Company Column.

GRADE VI.—GIRLS

Elementary Drill and Marching.—Movements of Grade V reviewed.

Gymnastic Exercises.—Set VI; Tables 46 to 54 of the Text Book. Dumb Bell Drill, Set II; Wand Drill, Set II; Indian Club Drill, Set II.—Easy sets of eight exercises each, reviewing Set I and adding combinations.

Figure Marching.—Marching of Grade V reviewed.

Basket Ball.—Out door Intermediate School League.

BOYS

Squad Drill.—Work of Grade V reviewed.

Skirmishing.—Continued practice in moving in obedience to signal.

Scouting.—Reading Camp Fire Yarns, Scout Games, Patrolling in search of information.

Field Sports.—Running Broad Jump, Running Hop, Step and Jump, Running High Jump, 50 Yards Dash, 100 Yards Dash, Fatigue Race, Wheelbarrow Race, in preparation for Sports Day about October 1st.

Gymnastic Exercises.—Set VI: Tables 46 to 54 of Text Book, or Dumb Bell Drill, Set II.

Rifle Drill.—Slope Arms, Present Arms, Trail Arms and Port Arms.

Company Drill.—Proving the Company, Marching in Fours and Company Column. Changing Direction.

GRADE VII.—GIRLS

Elementary Drill and Marching.—Work of previous years reviewed and continued.

Gymnastic Exercises.—Set VII: Tables 55 to 63 of the Text Book. Dumb Bell Drill, Set III; Wand Drill, Set III; Indian Club Drill, Set III. Easy sets of eight exercises each, introducing more combinations.

Figure Marching.—Columbia Drill, Lancers and Dance Steps to music.

Basket Ball.—Out door Intermediate School League.

BOYS

Squad Drill.—Work of previous grades reviewed. Formation of a squad in two ranks. Marching squad and in file; Diagonal march, Changing direction and forming up. Formation of fours. Fours changing direction and forming squad.

Skirmishing.—Practical work in obedience to signal. Use of cover, Reinforcing. Fire Control.

Scouting.—Reading Camp Fire Yarns. Scout Games. Semaphore Signalling. Scouting for reconnaissance. Formation of a patrol on a road. Patrolling for information.

Field Sports.—Running Broad Jump; Running Hop, Step and Jump; Running High Jump, Cross Country Run, 50 Yards Dash, 100 Yards Dash, 220 Yards Race, 440 Yards Race, Team Race, Relay Race and Tug-of-War, in preparation for Sports Day about October 1st.

League Sports.—Football in the fall, Hockey in the winter and Baseball in the spring, in Intermediate School Leagues.

Gymnastic Exercises.—Set VIII: Tables 64 to 72 of the Text Book, or Dumb Bell Drill, Set III. Or Fixed Apparatus Exercises—Exercises on the parallel bars, horizontal bar, flying rings, climbing rope, trapeze and vaulting horse.

Rifle Drill.—Manual and Firing Exercises.

Company and Ceremonial Drill.—In preparation for Cadet Inspection about June 1st.

GRADE VIII.—GIRLS

Elementary Drill and Marching.—All the elementary Drill and Marching reviewed.

Gymnastic Exercises.—Set VIII: Tables 64 to 72 of the Text Book. Dumb Bell Drill, Set IV; Wand Drill, Set IV; Indian Club Drill, Set IV—Simple set of eight evercises each.

Figure Marching.—Columbia Drill, Lancers and dance steps to music.

Basket Ball.—Out door Intermediate School League.

BOYS

Squad Drill.—All movements of squad drill taught by section commanders.

Skirmishing.—Practical skirmishing under the direction of the section commander in preparation for sham battle on Thanksgiving Day.

Scouting.—Scouting in patrols under the direction of the section commander.

Field Sports.—Running Broad Jump; Running Hop, Step and Jump; Running High Jump, Cross Country Run, 100 Yards Dash, 220 Yards Race, 440 Yards Race, Team Race, Relay Race and Tug-of-War, in preparation for Sports Day about October 1st.

League Sports.—Football in the fall, Hockey in the winter, and Baseball in the spring in Intermediate School League.

Gymnastic Exercises.—Set VIII: Table 64 to 72 of Text Book, or Dumb Bell Drill, Set III, or Fixed Apparatus Exercises—Exercises on the Parallel Bars, Horizontal Bar, Flying Rings, Climbing Rope, Trapeze and Vaulting Horses.

Rifle Drill.—Manual and Firing Exercises under the direction of Half Company Commanders.

Company and Ceremonial Drill under the direction of the Company commander in preparation for Sham Battle about June 1st.

RURAL AND VILLAGE SCHOOLS

Owing to the fact that a complete course in Physical Training is perhaps not so necessary in country schools as in city schools and also that these schools have less time and floor space at their disposal, it will usually be found impossible in country schools to carry out everything laid out in the town and city courses. As there rarely are sufficient boys in country schools to form a Cadet Company, the Cadet training will be impracticable, but scouting, skirmishing and target practice might be carried out. Similarly, lack of time and free floor space will make apparatus work impossible. It has been considered advisable to add a Course for Rural Schools, which leaves out these subjects but makes compensation for them by a greater elaboration of games and sports. However, when circumstances permit as in the larger rural schools or in villages, the complete course should be followed as nearly as possible.

In the rural course, the grades have been grouped in pairs to allow of greater economy of time and teachers will often find it advantageous to take the whole school at once in parts of the course, which are common to all grades.

GRADES I and II.

Class Tactics.—Morning and afternoon salutation to teacher. Rising and saluting, when visitors enter. Sitting posture of attention. Method of class standing. Standing position in the aisles. Taking distance. Method of marching in to places in room at hours of assembly. Method of dismissal.

Elementary Drill.—Boys to lift the cap when meeting ladies and to salute gentlemen whom they know. Saluting, Position of Stand at ease, Right turn, Left turn, About turn with regard to direction only.

Marching.—The quick march, Halt, Marking Time, Slow March, Double March and Skipping in time and rhythm to singing or other music.

Gymnastic Exercises.—Set I and II: Tables 1 to 18 of the Text Book.

Kindergarten Games.—Squirrel, Skipping-tag, Chickadee, Observation, Hide the Thimble, We are playing together, Pussy White, The Jolly Miller, Silent Game, Caterpillar, Color Games, Occupation Games, Sandeman, etc.

GRADES III and IV.

Class Tactics.—Morning and afternoon salutation to teacher. Rising and saluting when visitors enter. Sitting position of attention. Method of class standing. Standing position in the aisles. Taking distance. Method of marching in to places in room at assembly hours. Method of dismissal. Accuracy in all class movement required.

Elementary Drill.—Boys to lift the cap when meeting ladies and to salute gentlemen whom they know. Saluting, Position of attention, Covering, Stand at ease, Right turn, Left turn, About turn, Half right turn, Half left turn, Side Step, Stepping back, About turn, Marking time. Careful teaching in this grade forms the foundation of all future work.

Marching.—The quick March, Halt, Marking time, Slow March, Double March, Skipping, stepping out, stepping short. About turn on the march. Follow step, Changing step, Keeping in step. Regular accurate marching in perfect step in all class movements.

Gymnastic Exercises.—Set III and IV: Tables 19 to 36 of the Text Book.

Games.—See Appendix A of Text Book.

GRADES V and VI.

Elementary Military Drill and Marching.—All the fundamental military movements of Grade IV reviewed.

Gymnastic Exercises.—Set V and VI: Table 37 to 54 of the Text Book.

Scouting.—Reading Camp Fire Yarns from "Scouting for Boys." Scout games and playing Indian.

Field Sports.—Running Broad Jump; Running Hop, Step and Jump; Running High Jump; Fifty Yards Dash; 100 Yards Dash; Wheelbarrow Race; Fatigue Race and Relay Race in preparation for Sports Day, about October 1st.

League Sports.—Baseball, Basketball, Football, and Hockey.

Games.—Outdoor athletic games such as Dog and Deer, Prisoner's Base, Hide and Go Seek, Tag, Drop the Handkerchief, etc.

GRADES VII and VIII.

Elementary Military Drill and Marching.—All the elementary military movements of previous grades reviewed.

Gymnastic Exercises.—Set VII and VIII. Tables 55 to 72 of Text Book.

Scouting.—Reading Camp Fire Yarns. Scout games, Semaphore signalling, Skirmishing in obedience to signal. Formation of a patrol on a road. Patrolling for information.

Field Sports.—Running Broad Jump; Running Hop, Step and Jump; Running High Jump, Cross Country Run, 50 Yards Dash, 100 Yards Race, 220 Yards Race, Team Race, Relay Race and Tug-of-War in preparation for Sports Day about October 1st.

League Sports.—Basket Ball, Baseball, Football, Hockey, etc.

Games.—Outdoor athletic games, such as Dog and the Deer, French and English, Prisoner's Base, Hide and Go Seek, Tag, Drop the Handkerchief, etc.

HOUSEHOLD SCIENCE AND ARTS

GRADE VI.

GIRLS

Sewing Preliminary Lesson.—Correct position of body; necessary equipment; proper handling. Practical work. Threading needle, making knots, using a thimble; making a piece of cloth on cardboard after getting measurements.

Simple Stitches.—Basting, stitching, running, overcasting, gathering, hemming, stitches applied to sewing bag and tea towels.

Ornamental Stitches.—Outline stitch, catch stitch, feather stitching, hem stitching, blanket stitch. Stitching applied to dish towels, needle book, pillow cases, sheets and blanket for a doll's bed.

Seams.—Plain, fell and French.

Bands.—Review gathering, stroking, applied to bands put on in different ways.

Buttonholes.—Buttonhole stitch form, making different buttonholes, sewing on buttons applied to sewing apron.

GRADE VII.

GIRLS

Patching.—Overhanded patch, hemmed patch.

Darning.—Stockinet, cashmere, table linen.

Hems.—Turning different hems on paper, mitreing and cutting out a square corner. Applied to doily and table napkin.

Patterns (bought).—Method of cutting, measurements, method of putting together. Applied to underwaist and kimona.

Finishing Garments.—Gusset, plaket, sewing on lace, sewing on hooks and eyes.

COOKING.

Preliminary Lesson—

- (a) Personal appearance when at work.
 - (b) Dish washing, care of cooking utensils.
 - (c) Building a fire.
 - (d) Getting acquainted with kitchen.
- Practical work—Measuring.

Study of Starch—

(1) *Potatoes*.—Composition and use in body; methods of cooking. Practical work. Baked, mashed and creamed potatoes, white sauce.

(2) *Cereals*.—Source and composition, manufacture, methods of cooking.

Practical work: Oatmeal, cornmeal, cream of wheat.

(3) *Prepared Starchy Foods*.—Starch as a powder; starches as a source of energy.

Practical work: Corn starch mould, tapioca pudding.

Study of Sugar—

(1) *Sugar*.—Source and manufacture, value to body. Practical work. Candy.

(2) *Sugary Vegetables*.—Structure and composition; value to body of cooked and raw vegetables. Method of cooking. Practical work: Creamed cabbage, stewed onions, mashed turnips, cauliflower.

(3) *Salad Plants*.—Value to body. Methods of cooking; kinds and uses of salads. Practical work: Salads of lettuce, celery, tomatoes, salad dressing.

Study of Proteid.—Study of animal foods, tissue building foods, effect of heat on proteid.

(1) *Eggs*.—Composition and value to body; effect of heat. Practical work: Poached, boiled, scrambled, omelet.

(2) *Milk*.—Composition, care, effect of heat, value to body. Practical work: Junket, coffee, cocoa, milk soups, cottage cheese.

(3) *Cheese*.—Manufacture, food value. How to combine a starchy food and a proteid. Practical work: Macaroni and cheese, cheese fondu. Welsh rarebit.

Serving a Meal.—Breakfast. Preparation of dining room, setting table, planning menu, marketing, cooking and serving meal, cleaning up after meal. Practical work: Prepare room, buy supplies, cook and serve meal, wash dishes, clean rooms.

Menu—Fruit, cereal, omelet, toast, coffee.

GRADE VIII.

Review different stitches, buttonholes, seams, bands.

Use of the sewing machine and attachments.

Make one set under-garments.

Footing stockings.

Mending gloves.

COOKING.—STUDY OF PROTEIDS (*Continued*)

(1) *Meats*.—Structure and composition, use to body, kinds of meat and principal cuts with relative costs, care of meat, effect of heat.

Practical work: Visit market for cutting demonstration. Cook meat by following methods: Broiling, stewing, roasting, making meat soups.

(2) *Beans and Peas*.—Composition and use to the body; effect of heat.

Practical work: Baked beans, creamed peas.

(3) *Fats and Oils*.—Classification: manufacture of butter, value to the body, use as shortening.

Practical work: Comparison in use of suet and lard, frying potatoes.

(4) *Use of Left-overs*.—Review foods and methods of cooking.

Practical work: Salads, soup, souffles, escalloped dishes, croquettes.

Study of Lightening Agents—

(1) Flour mixtures classified, making pour batter, oven tests, expansion of air and water in baking.

Practical work: Popovers.

(2) *Making Drop Batters*.—Baking powder as a leavening agent.

Practical work: Muffins.

(3) *Soft Doughs*.

Practical work: Baking powder biscuits.

(4) Soda and Sour Milk or Molasses. Effect of acid and alkali, right proportions of each.

Practical work: Corn bread, brown bread, gingerbread, griddle cakes.

(5) *Yeast Bread*.—Study of yeast plant, experiments; kind of flour, methods of mixing and baking.

Practical work: White bread, rolls.

Serving a Meal.—Luncheon.

Practical work: Prepare room, buy supplies, cook and serve meal, wash dishes and clean rooms.

Menu—Consomme, meat, croquettes, creamed potatoes, tomato salad, rolls, gingerbread, tea.

Housework.—General care of the house; sweeping carpets, bare floors, matting.

Dusting floors, walls, furniture.

Washing of floors—hardwood, painted, oilcloths, matting.

Washing of windows.

Cleaning of faucets and other metallic substances.

Care of woodwork and furniture. Removal of spots and stains, oiling and polishing hardwood, care of paint.

Bedroom—Care of room and of closets, airing of room, care of bed and bedding.

Dining Room and Kitchen.—Care of glass, silver, china, linen, Care of stove, sink and garbage pail.

References.

FURNISHING

The kitchen should be fitted with a table or series of tables, laid out in a hollow square, with an entrance to each end. It should accommodate twenty pupils. The table is laid out in sections 32 inches wide by 52 inches long, each section providing working space for two pupils. This section provides three drawers, two individual drawers for small utensils, and one common to both pupils, for keeping supplies such as sugar, flour and salt. Each section is also fitted with a cupboard to hold the necessary pots and pans. An individual mixing board, which slides in between the top of the table and the drawers, is also provided. The top of each section of the table is fitted with two gas burners and a garbage crock. In the centre of the hollow square is a supply table, which may also be used as a demonstration table for the teacher. The kitchen is also provided with two sinks and an ordinary kitchen range.

Where only a kitchen is provided, as in most public schools, the demonstration table is ordinarily used to illustrate the method of serving.

EQUIPMENT—INDIVIDUAL.

Utensil Drawer:	1 baker.
	3 bowls.
	1 popover cup.
	1 measuring cup.
	1 plate.
	1 tin plate.
	1 sieve.
	1 Davis beater.
	1 paring knife.
	1 spatula.

	1 tablespoon.
	2 teaspoons.
	1 wooden spoon.
	1 fork.
Supply Drawer:	1 flour box.
	1 sugar box.
	1 salt box.
	1 salt shaker.
	1 pepper shaker.
Table Cupboard:	1 scrub basin.
	1 scrub brush.
	2 vegetable brushes.
	1 meat board.
	1 dish pan.
	1 draining pan.
	2 stewpans with covers.
	2 saucepans.
	2 frying pans.
	1 soak dish.
	1 stove plate.
	1 tea kettle.

EQUIPMENT—GENERAL.

Teacher's Table:	1 basting spoon.
	1 can opener.
	1 cork screw.
	1 large French knife.
	4 small French knives.
	1 knife sharpener.
	1 pair scissors.
	1 package tissue paper.
	1 spool thread.
	2 wooden spoons.
	10 graters.
	10 puree sieves.
Glass Door Cupboard:	1 cornstarch jar.
	5 lemon reamers.
	1 glass measuring cup.
	6 tumblers.
	scales (4 lbs.)
	10 teapots.
	6 white crockery cups.
	6 plates (10 in.)
	10 jugs.
	6 bowls, enamel, 3½ inches.
	3 bowls, brown, 7½ inches.
	3 bowls, yellow, 11 inches.
	1 portable oven.
	1 crock, for washing soda.
	1 dish pan.
	1 scrub pan.

- 1 washboard.
- 2 blackboard erasers.
- 1 tea kettle (large).
- 1 oven thermometer—700 degrees F.
- 1 thermometer, reg. 600 degrees F.
- 5 thermometers, reg. C. & F.

Pantry:

- 2 blankets.
- 1 ice cream freezer—2 quarts.
- 20 rolling pins.
- 10 potato mashers.
- 20 toasters.
- 1 pint measure.
- 1 quart measure.
- 2 steamer kettles.
- 1 storage tin, for flour.
- 1 bean pot.
- 2 round white enamel pudding dishes
- 10 pie plates (small).
- 1 storage tin, for sugar.
- 1 tray, black japan.
- 1 meat grinder.
- 4 baking sheets.
- 1 dripping pan, for meat, enamel.
- 1 pail for milk, 2 quarts.
- skewers.
- 6 cake tins, 8 in. by 8 in. by 2 in.
- 6 bread tins, 7 in. by 4½ in. by 3 in.
- 4 muffin sets.
- 1 bread raiser tin, 10 qts., 17¼ in.
- 4 doz. biscuit cutters.
- 1 butter crock.

For Cleaning:

- 1 string mop.
- 1 broom.
- 1 oil can.
- 1 dust pan.
- 1 stove apron.
- 1 stove mit.
- 1 stove brush.

Linen:

- 15 dish towels, ¾ yard.
- 15 scrub cloths
- 15 sink towels.
- 2 jelly bags.
- 20 meat cloths.
- 6 oven cloths.
- 6 dusters.
- 6 glass towels.
- 15 dish cloths.

Furniture—Kitchen:

- 1 hollow square table.
- 20 chairs.
- 2 chairs.
- 1 coal range.

	1 gas range.
	1 refrigerator.
	2 sink cupboard and drain boards.
	1 teacher's table.
	1 supply table.
	1 glass door cupboard.
On Wall and Floor:	2 asbestos mats.
	1 hand basin.
	1 clock.
	1 coal hod.
	1 cup (white enamel).
	1 pail.
	1 pot scraper.
	1 refrigerator pan.
	1 scrub brush, for sink.
	1 soap dish.
	2 towel bars.
	1 waste paper basket.
	1 knife board.
Dining Room:	1 table.
	8 chairs.
	1 side table.
	$\frac{1}{2}$ dozen teaspoons.
	$\frac{1}{2}$ dozen forks.
	$\frac{1}{2}$ dozen dessert spoons.
	3 tablespoons.
	$\frac{1}{2}$ dozen steel knives.
	1 carving knife and fork.
	1 water jug.
	1 vinegar cruets.
	1 set dishes, 97 pieces.
	1 table cloth.
	1 silence cloth.
	1 dozen table napkins.

HYGIENE

The right understanding and carrying on of work in Hygiene in the common schools should be viewed by the teacher as a matter of inducing good habits rather than as a work of instruction. This is particularly true in the lower half of the school and even in the upper grades of the school the elementary knowledge of physiology required is not to be regarded as valuable for its own sake so much as for giving force and understanding to practices. Practically no direct teaching can be done in the first two years of school, but careful attention should be given daily to the correction of carelessness in dress and the condition of hands, face, neck, hair, etc.

The elaboration of the course by grades and topics is intended to make a text book unnecessary for pupils' use. Most of the

material is based on common sense rather than in technical knowledge. Studies of such parts of the body as bones, muscles, skin, etc., are not intended to be anatomical, but merely to be the observation of common and obvious function. There are studies, however, relating to the respiration, circulation and digestive systems that may be helped by the use of charts or drawings.

In the highest grade, special emphasis should be given to the matter of first aid and to certain aspects of public hygiene connected with the work of the Medical Health Department in its regulation of the care of contagious and infectious diseases, pure food regulation and the disposition of refuse. The bearing of good habits on success should be constantly impressed.

The demands of the course should be met by one period per week of regular work together with incidental teaching whenever necessary. The lesson should take the form of readings or talks rather than of study.

Teachers' References—

Ontario Public School Hygiene—Knight. Copp, Clark & Co.
 Gulick's Health Series. Ginn & Co.
 Civics and Health—Allen. Ginn & Co.

HYGIENE.—GRADE I.

Cleanliness.—Every child should be required to come to school with clean hands, face and neck and with hair neatly combed. Boots and clothes should be clean and neat.

Posture.—Correct habits of sitting, standing and walking. Prevention of habits of lounging. Marching to develop erect bearing.

Exercise, Play and Sleep.—Exercise and marching should be practised at intervals during school hours. The exercise should be simple one-movement exercises to develop main muscles only. The child should be encouraged to play games out of doors and to tell of them in school. Unrestrained play is the best form of physical exercise. Children should go to bed early to get plenty of sleep, in which the worn-out muscular tissue may be repaired.

Food.—Children should be instructed to eat enough plain, wholesome food, but waste none. Eat slowly, both because it is healthful and because it is good manners.

Sunshine and Fresh Air.—Children should be taught that it is good for them to be out in the sunshine. They need sunshine for growing as much as plants. Illustrate by plants that have grown in darkness and shade, *e.g.*, potatoes in a cellar and saplings in a bush. The need for fresh air may be shown by drawing their attention to the inflow of fresh air and the outflow of impure air in the schoolrooms or by opening the windows at recess and other times. Keep the school room as bright and well aired as possible.

GRADE II.

Cleanliness.—Continued emphasis on the practice of cleanliness as in Grade I. Pupils should be made to understand its relation to health and self-respect. Simple talks should be given on the care of the hands, nails, teeth, hair and skin.

Posture.—Habits of correct sitting, standing and walking and continued with especial care to prevent bad habits of sitting. Frequent exercises in stretching to counteract stooping position.

Exercises, Play and Sleep.—Exercise and marching should be given every day in ten to fifteen minute periods. See Physical Culture course for exercises, marching and games. This is the period of imitation games when the child likes to pretend, and all such games as playing horse, etc., are to be encouraged. Kindergarten games may be played indoors in winter. Running, skipping, hopping in time to music.

Food.—Talks on food continued. Eat sparingly of sweets and pastries, and at regular meals drink plenty of water and milk, but very little tea or coffee. Do not eat too much. Care of the teeth in relation to eating.

Sunshine and Fresh Air.—Emphasize the relation between sunlight and health for both plants and animals, illustrating by the facts that flowers are more abundant in spring before the leaves come out than later in the summer. Give breathing exercises to fill the lungs with fresh air. Fresh air in the bedroom at night a necessity; the open window in the bedroom.

GRADE III.

Cleanliness.—Constant attention should be given to cleanliness of person and clothing, with the object of forming good habits. Instruction in regard to cleanliness and care of the skin, eyes, ears, nose, mouth, nails, body, hair; cleanliness of hands and face, particularly at meal times.

Posture.—Careful attention to seating of pupils. Frequent stretching exercises. Talks of correct posture and its value.

Exercise, Play and Sleep.—Exercises of previous grades continued and extended marching military positions, turnings, wheelings, as in physical culture course. Outdoor games should be encouraged. Teach children up to twelve years of age that they should have ten hours' sleep each night.

Food.—Food as the fuel of the body, the necessity of plenty of wholesome food. Simple lessons on eating, drinking, and breathing, to impress on the pupil that our power to do work depends upon the supply of fuel. Care of the teeth.

Sunshine and Fresh Air.—Pure air and things that spoil it; breathing air that has been breathed several times by others; dust in the air; the benefit of moisture in air in room; effect of a rain-storm on the air. Means of getting fresh air into and impure air out of a room, *e.g.*, windows, doors, chimneys, ventilators. Show the currents of air going out of and coming into a room.

GRADE IV.

Cleanliness.—Pupils are now old enough to be responsible for cleanliness of person and clothing, and this should be expected.

Posture.—Close attention to correct habits of position. Stretching exercises and exercises for postural correction. Frequent talks on value of correct posture.

Exercises, Play and Sleep.—More complicated exercises and greater accuracy in their performance. See Physical Culture Course. Games both outdoor and indoor.

Foods.—Talks on the values of foods as tissue builders and heat producers. Talks on the several drinks, their value and abuses, the evil effects on the body and the mind of alcoholic stimulants and tobacco. Chew food well and do not drink anything while eating.

Sunshine and Fresh Air.—Illustrate its effects on the growth of plants by a reference to the absence of grass under an open verandah or shed, under evergreen trees with low branches, in a bush except in open places, etc.; compare the appearance of a maple growing as a shade tree and in the bush; account for the appearance of saplings in a bush, the cone-shaped appearance of fir trees, the location of the leaves on trees near the outer ends of the branches, the carpet of needles under fir trees. Compare the color of the skin of people in colder climates with that of people from warm sunny climates; compare the appearance of people who work out-of-doors to those who work inside. From the above lead the pupil to realize the relation between sunshine and health.

GRADE V.

The Skin—Experiment, Observation, Habit.

Moisture given off from the skin as shown by placing the warm hand on a cold window pane; observation of oil that appears on the skin. The outer or scarf skin is being shed constantly. This may be shown when the skin is rubbed hard by the wet hand without soap. The necessity for keeping the skin clean, owing to the gradual decay of this mixture of sweat, oil and scarf skin. The relation of cleanliness to health and self-respect.

Framework of Body.—Simple study of framework of the body. The bones as the framework of the body; their attachment to each other at the joints by ligaments, the cushion of cartilage on the end of each bone, the attachment strengthened on the outside surfaces by tendons and muscles. How the growth of the cartilage and ligaments may be affected by sitting at desks too high or too low, or by wrong habits of sitting, standing or walking. Exercises for postural correction continued.

Muscles and Physical Culture.—General observations regarding muscles; what they are, and how they act; how they are built up; their waste and decay, and how they are improved by exercise.

Digestion.—Discussions of various kinds of foods continued. Heat producers and tissue builders, need of change of food, need of meats and vegetable diet, fruits, value of certain staple foods. Food as fuel for the body; effect of over-eating as in adding too much fuel; effect of poor food as of poor fuel. Simple talks leading to a general understanding of the way in which the food is digested and absorbed into the blood. A study of the mouth as seen by a mirror. Causes of decay of the teeth. Care of the teeth.

Food.—The pumping action of the heart forces the blood to all parts of the body; simple talks on the flow of the blood; the pulse caused by the heart beat. Observations of pulse in children and adults.

Air and Ventilation.—Things that spoil fresh air: (1) dust and smoke; (2) injurious substances in air that has been breathed. (1) Dust: the presence of chaff dust, dust that rises from the floor and from outside. Observation of dust in sunbeams. (2) Air that has been breathed: Limewater tests of air breathed and air of room. Observations and discussions about the cause of drowsiness and headaches in schools or after-meetings in crowded halls. Need of ventilation in homes, schoolrooms, churches and halls. Proper temperature of the schoolrooms (60 to 70 degrees).

Nervous System and Special Senses.—Talks about feeling to bring out the facts that messages are carried by nerves to the brain and motor impulses back to nerve endings which, acting on the muscles, bring action.

Care of the eye and ear. The value of temperance in all things as habit of life. The value of good habits.

GRADE VI.

The Skin.—Use of sweat in regulating the temperature of the body. Use of sweat in carrying off waste tissue, which is deposited on the surface of the skin or clothing, clogging up the pores if the skin is left unwashed. Study of the oil glands, hair and nails and the use of each. Reason for the necessity of cleanliness of skin, hair, nails and clothing.

Framework of the Body.—Simple study of the spinal column, its cushions of cartilage and ligaments. The evil results that follow, *e.g.*, the curved spine, the raised or drooping shoulders, the shuffling gait, the awkward bearing and the general loafing appearance. Exercises for postural correction continued.

Muscles.—Work of previous years continued and reviewed. Discussions of the value of exercise, play and league sports, such as football, hockey, baseball.

Digestion.—How solid foods are broken up by the teeth, the shape of the different kinds of teeth in relation to their uses in cutting, tearing and grinding the food. Need for complete chewing of food.

Circulation.—Talks on the blood continued, the arteries and veins, the work of the blood in bringing nourishment to all parts of the body.

Exercise causing the heart to pump faster, thus increasing the flow of the blood, effect of use and disuse of any part of the body on increasing or decreasing the blood supply and therefore on the proper development of those parts, need of exercise, both mental and physical, danger of too violent exercise.

Air and Ventilation.—Fresh air; ventilation, impurities in air, *e.g.*, spores and germs. Illustrate from puff balls, the mould on bread, leather, fruits, the rot of fruits, decay of trees, scabs on

apples, etc. From this the pupils may be led to understand the danger of infection in such cases as measles, diphtheria and consumption.

Need of deep breathing to exercise every portion of the lungs, effect of tight clothing on the expansion of the chest and lungs, unhealthy condition of any unused portion of the lungs; danger that spores of consumption taken into the lungs with the air may find a suitable place to grow on these delicate parts, or on those parts of the lungs inflamed during heavy colds.

Nervous System and Special Senses.—Talks on nerve telegraphy continued, the brain as the centre of the nervous system. Care of the nose and throat.

Habits.—Pupils should be taught the effect of habits, whether good or bad; how habits are formed; the forming of good hygienic, mental and moral habits.

GRADE VII.

The Skin.—The habits of cleanliness reviewed and studied more particularly from the standpoint of cause and effect. Relation of cleanliness to health and self respect. Discussion of washing, bathing, swimming, the bracing effect of cold water, the value of soap and warm water in dissolving waste tissue, the washing of clothing, kinds and colors of clothing and use of each.

Framework of the Body.—General idea of the chief bones which go to make up the human body—these to be learned by feeling and observation; chart of bones; little attention to be given to the names and numbers, but more to shape, size, position and use. The necessity for correct bearing; the relation of bearing to the mind and presence.

Muscles and Physical Training.—Comparison of values of games and gymnastics, of individual games and team games. Results of constant exercise, danger of over-developing particular muscles.

Digestion.—The contents of suitable food; foods rich in each content; foods containing all; milk, the food for the young; the necessity for a variety of food; care of foods. Simple talks leading to a general use of the saliva; the use of the tongue, sense of taste as a guide as to what to eat, the action of the stomach, the important digestive juices, absorption of the digested food into the blood; the effect of fatigue, either physical or mental, on digestion. The danger of over-eating.

Circulation.—The general structure of the heart; the danger from overwork of the heart during running, jumping, lifting or violent exercise of any kind. Arteries, capillaries, veins, with their function and relation. The use of the blood in bringing oxygen into the system to mix with the fats to produce heat and to bring in nourishment for the building up of the cells and to carry off waste matter.

Respiration.—Talks with illustrations to give a general knowledge of the facts of respiration, the course the air takes through

the nostrils, pharynx, part of epiglottis, the glottis through the trachea into the lungs and back, the structure of the lungs, the circulation of the blood within the thin walls of the air cells, the mechanism of breathing, the processes by which oxygen is transferred to the blood and waste material is thrown off; the necessity for deep breathing, so as to use all parts of the lungs; the danger that unused or inflamed parts of the lung may become attacked by the spores of consumption.

Air.—Composition of fresh and exhaled air; ventilation, impurities in the air, particularly germs of infectious and contagious diseases, means of preventing them from spreading disinfection.

Nervous System and Special Senses.—Talks with illustrations to give a general knowledge of the structure, functions and protection of the spinal cord; the function of the nerves. The formation of good habits; the effect of alcohol and tobacco on general health, growth, physical and mental endurance, particularly of youth; the danger of forming the alcohol and tobacco habits. Review of the special senses.

GRADE VIII.

The Skin.—A study of the values of habits of cleanliness. Study of clothing continued. A short study of the prevention and care of diseases of the skin and vermin. The treatment of burns and scalds, frost bites and venomous stings. Bandagings.

Framework of the body.—Study of the composition of the bone and how it heals. Symptoms of dislocation and fractures, and how they should be treated; bandages and splints.

Muscles and Physical Training.—A study of some of the principal muscles, their composition, structure and uses, waste and decay. A comparison of different sports as to their value in muscle building. Compositions on values of different kinds of gymnastics, plays, sleep, over exertion, etc. Care of wounds.

Digestion.—The talks on foods of the lower grades reviewed and extended; drinks, the effect of stimulants and narcotics on the digestive system. A general review and summary of the digestive organs and processes, the mouth, teeth, tongue, saliva, pharynx, esophagus, stomach, intestines, the important digestive juices and their actions and absorption into the blood. First aid in cases of poisoning. Prevention of typhoid fever.

Circulation.—A review and summary of the circulatory system, the uses of the heart, arteries, veins and capillaries, uses of the blood. Position of main arteries and veins which might be severed, clotting of the blood. First aids in cases of bleeding. Effect of stimulants and narcotics on the circulatory system. A general conception of how the life processes are carried on and how life is maintained.

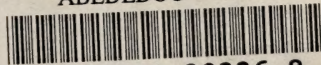
Respiration and Ventilation.—Continued and extended to lead to the general conception of wonderful mechanism of respiration and the part it plays in sustaining life. First aid in apparent drowning and choking. Talks with illustrations to give a general knowledge of the vocal organs, their function and care. In-

fectious and contagious diseases, their cause, the necessity for cleanliness and isolation; the importance of quarantine during epidemics, the certainty of spreading disease if the supply of water or milk has become infected, the duties of the Board of Health and M. H. O., care of refuse and garbage. Consumption, its cause and treatment; the danger from infection. Danger from spitting.

Nervous System and Special Senses.—The effect of habits, good or bad, on the physical, good mental and moral life should be strongly emphasized; the danger of forming bad habits during youth when the evil effect is not realized. The danger of becoming mere creatures of habit; the relation of these physical, mental and moral habits to health; the relation of health to happiness and efficient work should be impressed on the pupil; the effect of high purpose and determined will on the health of the body as well as on the mind and character.

Instruction in first aid in fainting and sunstroke.

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